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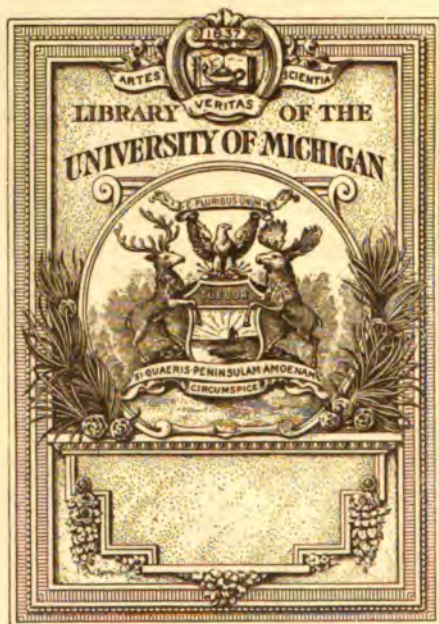
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# **THE SOUTHERN PRACTITIONER**

**AN INDEPENDENT MONTHLY JOURNAL**

*Devoted to Medicine and Surgery*

**NASHVILLE, TENNESSEE**

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**DEERING J. ROBERTS, M. D.**

**EDITOR AND PROPRIETOR**

**Late Professor of Principles and Practice of Medicine in the Medical Department of the University of the South, Late Professor of the Theory and Practice of Medicine in the Medical Department of the University of Tennessee**

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### ***Original Communications.***

#### **PARATYPHOID INFECTIONS.\***

**BY G. F. AYCOCK, M.D., OF NASHVILLE, TENN.**

Within recent years, especially during the course of epidemics of typhoid fever, the profession has been called upon to treat patients in a febrile state, who present symptoms atypical of any hitherto described disease. In the majority of these atypical cases the clinical findings have been such, that for the want of a more definite term they have received such diagnoses as "mild typhoid," "abortive typhoid," etc.

However, bacteriological investigations within the past decade have revealed facts which demonstrate that some of

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\*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, December 2nd, 1913.



these atypical conditions can be accounted for by the activities of certain varieties of organisms possessing characteristics intermediate between those of the *B. Typhosus* and the *B. Coli Communis*. Several different bacteria belonging to this class have been isolated and described. Some of them, culturally and morphologically, bear a resemblance to the *B. Typhosus*, but it appears that only a few of them are pathogenic to man. Of those pathogenic to man, it seems sufficient evidence as to their characteristics and the changes they produce in the human body, has been adduced to justify the designation of the condition for which they are responsible as a distinct etiological entity. Accordingly, the infections produced by these organisms have been grouped together under the general term "Paratyphoid Fever," or "Paracolic Fever."

Paratyphoid Fever, it will thus be seen, is a disease, or group of diseases, caused by several different bacteria, possessing like characteristics to a sufficient degree to entitle their consideration under one group.

*Etiology.*—Although several bacteria come under this group, only two appear to have been found often enough to regard them as etiologically important, viz., the Para "A" and the Para "B". Among the other organisms of this group may be mentioned the following: *B. Enteritidis* (Gaertner), *B. Paracoli*, *B. Suisepicus*, *B. Alcaligenes*, *B. Calves Diarrhea*, *B. Mouse Diarrhea*. Hunt\* has made the following classification from a clinical standpoint:

Group 1. Closely resembling typhoid fever, usually due to Para "A".

Group 2. Closely resembling influenza of the abdominal type, due to Para "A" or "B", or to mixed infections, including these, as well as the *B. Typhosus*, *B. Paracoli* and the *B. Alcaligenes*.

Group 3. Suggesting general gastro-enteric inflammation, with nausea and vomiting, often diagnosed as ptomaine

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\*C. J. Hunt: Archives Internal Medicine, July 15, 1913.

poisoning, and usually due to one of the lower group members of the Paratyphoid group.

Group 4. Closely resembling dysentery, in which the *B. Dysenterica* is not found, but most often the *B. Enteritidis* is isolated from the feces, and agglutination reactions confirm the findings. The *B. Para "B"* is found almost as constantly as the offending organism. This condition is often diagnosed as ptomaine poisoning and cholera morbus.

Investigations demonstrate clearly that the mode of transmission of the infective organism does not differ materially from that of the *B. Typhosus*. Like the *B. Typhosus*, water seems to be a great agent of transmission, especially so as regards the *Para "A"*. This organism was first identified and isolated from the spring water of an Italian village by Paladino-Blandino, in 1903. In 1909, May isolated the same from running water used for domestic purposes. Baermann and Eckersdorff, in eight cases isolated cultures from the feces. Harvey and Grotton recovered the organism from the blood of seven patients, tracing the source of infection to a cook suffering with cholecystitis several months before.

*B. Para "B"*. Its identification at the present time is indefinite. Some observers hold there is no sharp distinction between this organism and the *B. Enteritidis*. The *B. Para "B"* was first described by Achard and Bensuade in 1896, and since that time has been recovered frequently from the blood and dejecta of those suffering with the disease. The first epidemic reported in the literature occurred in Saarbrücken, Germany, in 1902, during which the bacillus was recovered from the feces in eighteen cases, and from the blood in four cases. This bacillus, like the *Para "A"* has been isolated from sources of domestic water supply. Liebetau reported an outbreak of nineteen cases, of whom three died, the source of infection being traced to ice cream. König reported four cases from the ingestion of raw ham; the blood gave a positive reaction, and later the bacillus was isolated from the ham. Heinneman and Neuman, out of a study of

forty-seven cases, found that only those who had eaten meat from a certain butcher shop gave a positive agglutination test with the B. Para "B".

That this bacillus inhabits the gastro-intestinal tracts of some of the domestic animals has been established. Schmidt and Consadi recovered the organism from the feces of swine, and Ruedeger from the feces of a dog.

*Frequency.*—The relative frequency of paratyphoid compared with typhoid varies. Proescher and Roddy reported that in the Allegheny County General Hospital in 1908-'09, there were fifty cases of Para "A", about two hundred cases of typhoid and not one case of Para "B", making a ratio of 1:5 in this series of cases. Hunt, during the subsidence of an outbreak in Bethlehem, Pa., investigated eighteen cases of bacillary dysentery, and found that one case reacted positively to B. Para "B" and B. Typhosus, eleven reacted to the Para "B" only, and negative reactions were obtained with the other bacilli of the group. Two patients showing a positive reaction died. His analysis of 117 cases, collected in several different municipalities of Pennsylvania, where the agglutination reaction was studied in 1:50 dilution, yields the following:

|  |                    |
|--|--------------------|
| B. Typhosus, only                        | 54 cases or 46.15% |
| B. Para "A", only                        | 9 cases or 7.7%    |
| B. Para "B", only                        | 47 cases or 40.2%  |
| B. Typhosus and Para "A" and "B"         | 2 cases or 1.71%   |
| B. Para "A" and "B"                      | 1 case or .86%     |
| B. Para "A" and "B" Paracoli             | 2 cases or 1.71%   |
| B. Para "B" and "B" Paracoli             | 1 case or .86%     |
| B. Typhosus, B. Para "B" and B. Paracoli | 1 case or .86%     |

*Pathology.*—In general the pathology conforms to that of typhoid fever. As a rule the intestinal lesions are not so marked. The tendency toward the destruction of Peyer's Patches is absent in the majority of cases. The enlargement

of the spleen is almost constant, but it is seldom enlarged sufficiently to be palpated beneath the costal margin. The Mesenteric lymph nodes, the blood and gall bladder are points of bacterial invasion as in typhoid.

*Clinical Course.*—In the majority of cases, especially where the B. Para "A" is the offending organism, the clinical course does not vary to any marked extent from that of typhoid fever. It seems that the prodromal period is shorter, the onset more abrupt, the general duration shorter, and there is greater tendency for the temperature to end by crisis. This latter statement is denied by some observers. Not only is the clinical course usually shorter, but as a rule the symptoms are less severe than in typhoid. The presence of rose spots is not as frequent in the experience of most observers. The presence of bronchitis and pleurisy in the beginning is noted in a good percentage of cases. As a rule the palpation of the spleen can be accomplished but rarely. Constipation is usually present in those cases caused by the B. Para "A".

The so-called gastro-intestinal type, described by some observers, is marked by sudden onset, severe abdominal pain, high temperature, nausea and vomiting and diarrhea, the stools frequently containing blood. It is very likely this type is due to the B. Para "B", associated with some of the other members of the group, notably the B. Enteritidis.

The characteristic leucopenia of typhoid is present in paratyphoid. The Eosinophiles are diminished in the beginning, but increased during convalescence.

*Diagnosis.*—The only means of establishing a positive diagnosis is the isolation of the organism from the blood or dejecta. Agglutination tests are not to be depended upon absolutely. The organism Para "A", especially, yields agglutination reactions which are misleading. In low dilutions, these bacilli will clump frequently with serum from patients suffering infection by the B. Typhosus. The same has been noted in other pathological conditions and with

normal serum. Experience has taught that the Para "A" will clump in higher dilutions than the typhoid bacillus. Chemical products formed on certain media by the B. Typhosus and certain members of this group vary sufficiently to be of aid in differentiating them.

Differential diagnosis between this disease and typhoid fever is to be established from an etiological standpoint only. The bacilli are to be isolated from the blood easier than from the dejecta. The agglutination test should not be made with serum from a typhoid patient, the best results being obtained by using the serum from an immunized animal.

Early pulmonary tuberculosis frequently presents a differential diagnostic problem under the consideration of Paratyphoid. The mildness of the symptoms, the accompanying pulmonary findings, and the fact the patient is often up and walking about, renders a bacteriological examination imperative before a diagnosis can be established.

*The complications and Sequelae of Paratyphoid* correspond in a general way to those of typhoid. Relapses occur in about 10% of cases. Hemorrhage occurs in about 5% of cases, but is seldom, if ever, fatal. No cases of perforation have as yet been recorded. Albuminuria is frequent. Cystitis, pyelo-nephritis, and nephritis with tube casts and blood are not uncommon. Complications of a suppurative character have been noted—such as arthritis, osteo-myelitis, orchitis and cholecystitis. The bacilli have been isolated from the foci of infection in these conditions.

*Prognosis.*—In cases thus far collected from the literature, a mortality of less than five per cent is indicated.

*Treatment.*—The methods applying to the care of typhoid, both prophylactic and therapeutic, are not to be varied in Paratyphoid. Experiments show that immunity against Paratyphoid can be produced in animals. The degree of immunity seems to be higher than that for typhoid, but immunity to one strain does not confer absolute immunity



against the other strains of the group. Bearing these statements in mind, the plan of administering mixed vaccines for prophylaxis would naturally suggest itself.

From the preceding statements, one is led to question the necessity of making a distinction between typhoid and paratyphoid infections. The differences existing clinically appear to be of degree only, and attempts to make a classification on any other basis will result in confusion. However, that recognizable etiological differences exist cannot be doubted, and the interests of preventive medicine demand our acquaintance with the causative agents, in order that their activities may be checked or lessened. The comparative frequency with which negative agglutination reaction reports are returned on patients in an apparent typhoid state, should be made. The importance of this feature is emphasized when we realize that the modes of transmission are the same, the disease is equally infectious, and the mortality is distinct. Hence, a patient infected, or a carrier, in whom the bacillus goes unrecognized, is a source of danger to the community at large, and it is safe to assert that many epidemics can be ascribed to the lack of recognition of this definite etiological factor.

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WHOM THE GODS WISH TO DESTROY, THEY FIRST  
MAKE MAD.

*The Coterie of Politicians Who Run the A. M. A. Finally  
Shows Its Hand.*

G. FRANK LYDSTON, M.D., OF CHICAGO, ILL.

I present the following to the profession merely as one standing on the side lines watching the passing show. In presenting it I entertain no hope of awakening the physicians of the country to a sense of their danger from medical despotism and trust-monopoly. Many years of hard and expensive endeavor have shown me that the average member of the profession is indifferent to everything save his own individual interests.

Five years ago the political Powers That Be sent from the throne on Dearborn avenue this message to the profession in answer to my expose of the putrid conditions that prevailed in medical Denmark:

"There's simply nothing to it. Everybody except Lydston is satisfied with conditions in the A. M. A.

Experience has proved that the oracle of Dearborn avenue was right. Certain persons were, of course, not satisfied to have certain other persons hold all the offices, otherwise there apparently was no complaint.

I will remark in passing that, in presenting this brief communication, I am not foolish enough to believe that the perusal of it will let the smallest ray of light into the thought chambers of those "insurgents" for place and power only, who consider that the end and aim of reform agitation are only to capture offices for themselves and their satellites. These gentlemen would not recognize a great principle if they met it in the street. Still less would these politicians sacrifice an office to the promulgation of a principle. "Let principles wait on offices," is their motto. Far be it from them to take a political whipping in order to emblazon a principle on the history of medical politics.

And so these gentlemen go empty-handed to state and national association meetings and empty-handed they return. They simply march up the hill and down again.

"But they get offices." Certainly, but we are discussing reform principles, not political offices, and one set of demagogues is as bad as another.

The profession of Illinois will recall the Surgical Bill which certain parties endeavored to foist on the profession of Illinois. They will remember also, that the moguls of the A. M. A. hastened to disclaim its parentage—which, by the way, was incontrovertibly proved on them. Notice, please, the similarity of the Surgical Bill to the one which I will shortly present. That the two bills were the fruit of the same political loins is self-evident.

I have elsewhere asserted that the efforts of the officials in control of the A. M. A. to secure a Federal Bureau of Health were not sincere. I reiterate here, what I have before publicly stated, viz.: *The Medical Trust cares not a continental for the best interests of the profession and the people of the U. S. It merely wants an absolute monopoly of all things medical in this country.*

A. M. A. officialdom is howling in the open for a Federal Bureau of Health. Under the rose it has combined with the medical departments of the government—notably with the Marine Hospital Service—to knife said Bureau of Health.

Noting that the members of the National Bureau of Health committee which they had appointed was likely to rise above its source, the A. M. A. machine crowd proceeded to throw mud at said committee—as witness what happened at the last A. M. A. “round-up” in Minneapolis. A prominent surgeon on the committee was openly accused by the machine of soliciting funds for bribery at Washington.

*..Fearing that their “pot vs. kettle” tactics would fail, the A. M. A. gang next proceeded to attempt to get a “cinch” on the only thing which a Federal Bureau of Health would bring them that they cared a hang about, viz: absolute control of the teaching, licensing and practice of medicine in the U. S.!*

The bill which I here present shows how the gang set about accomplishing its fell design.

63rd Congress—First Session.

H. R. 8606.

In the House of Representatives. (Sept. 27, 1913).

Mr. Reilly of Connecticut (by request) introduced the following bill; which was referred to the Committee on Military Affairs and ordered printed.

#### A BILL

TO CREATE A UNITED STATES MEDICAL LICENSING BOARD.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled;

That the President be, and he is hereby, authorized and directed to appoint *two medical officers of the United States Army*, with the rank of captain and of major; *two medical officers of the United States Navy*, with rank of Lieutenant and Lieutenant Commander; and *two medical officers of the United States Marine Hospital Corps*, with the rank of Lieutenant and Lieutenant Commander, to a board to be known as the *United States Medical Licensing Board*.

Sec. 2. That the terms of the members of the board to be four years each, and the salary of each member thereof to be \$4,000 per annum with mileage. Said board shall be in continuous session at Washington when not on duty in various states.

Sec. 3. That all regular licensed practitioners of medicine, now holders of a medical diploma and a state license permitting them to practice in the respective states, shall upon the passage of this act by presenting to said Board their medical diploma, their state medical license, and any other diplomas they may have, and upon the payment of the sum of \$2 be given a United States License which will permit them to practice their profession of medicine in any state or territory of the United States and its possessions.

Sec. 4. That the United States Licensing Board shall hold its meetings in various cities of the United States and shall examine all newly-graduated medical doctors so that they may obtain a United States license, which license will permit them to practice medicine or surgery in any state or territory of the United States and its possessions without any further examination: Provided,—That any candidate for said license shall fulfill all the requirements of *the American Medical Association*, and shall be an American citizen and present a high school certificate or its equivalent and shall have a doctor of medicine diploma from a *medical college in good standing, as declared by the American Medical Association*, and upon the payment of \$10 and the filing of certificates of good moral character shall be admitted to ex-

amination and upon the passage of said examination shall be granted a United States License, which will permit the holder to practice medicine and surgery in any state or territory of the United States and its possessions.

Sec. 5. That the license may be revoked in case abortions or other *unprofessional conduct* and criminal acts are performed.\*

The profession will please observe:

1. That there is nothing subtle about this bill. On the contrary it is as ingenuous as it is asinine and devoid of the slightest knowledge of constitutional law.

2. That a foreign-born physician would have to wait several years for his naturalization papers before he could apply for an examination for a "United States" license. He could not then qualify unless his Alma Mater was approved by the A. M. A. The "Cock Robins" of befo' de war, could not have been less liberal.

I reverently invoke the shade of Christian Fenger to pass judgment on this insult to the memories of certain great men. I might appeal to the great men of foreign birth and education who are still with us and already licensed to practice medicine, were I sure that they care what may happen to those who come after them. As for those medical foreigners who are feeding at the A. M. A. trough, they probably are very well satisfied.

3. If this bill should pass,—which of course, it can not, unless Congress is merely an aggregation of imbeciles from the idiotic actions of which the Supreme Court alone can protect our suffering country—the A. M. A. need no longer classify medical colleges. It can arbitrarily settle the fate of all schools save those run by its own satellites.

4. It is proposed that the medical despotism under which we now are struggling to survive, shall become a *medico-military despotism*! Imagine the profession under the dominance of the A. M. A.—military combine!

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\*Italics mine. G. F. L.



(I have already publicly shown how the A. M. A. gang and the military medical authorities have combined for their mutual interests and against the best interests of the profession at large. I have in my possession evidence which apparently shows that the military medical authorities and the A. M. A. gang have combined in at least one important matter to prevent scientific truth for reasons best known to themselves).

5. Note please, that \$2 per capita will mulct the physicians now practicing in the U. S. to the tune of something like \$300,000! They surely will all want licenses, and the next step probably will be a compulsory law. As Mr. Doolley said, "That's wan way of gittin' the money."

6. Note, please, the enormous revenue to be derived from "newly graduated medical doctors" at \$10 per.

Will the various states stand passively by and see their own constitutional rights abrogated and their little graft raped from them? Perish the thought—and the national robbers!

7. Note, please, what will happen under the bill to anybody who is guilty of "unprofessional conduct." *Remember that the A. M. A. will put the stamp on our conduct.* The Lord help an outsider who gets a full-page syndicate unpaid newspaper ad! If he doesn't happen to be a member of the A. M. A. or a Fellow of the Royal American College of Surgeons—to the Bastille with him!

The foregoing is merely by way of emphasis and substantiation of what I have elsewhere and often publicly contended regarding the personnel and policies of the A. M. A. Personally, I think it would be a good thing for the profession if such a bill as that under consideration were "put over." The doctor might wake up and show that he does not like the pressure of the foot on his neck so well as he now appears to do. But then, it might be too late.

N. B.—Since the foregoing was written the Appellate Court of Cook County, Illinois has handed down the de-

cision (Oct. 7, 1913) sustaining my contentions regarding the operations of the American Medical Association.

1. That the elections of the American Medical Association can not legally be held outside the State of Illinois.

2. That the membership at large should have a direct vote.

3. That non-members should not be privileged to vote.

4. That the delegate system is illegal.

A. M. A. officialdom moved heaven and earth to prevent by hook or crook a legal decision on the matters at issue. The late John E. W. Wayman, States Attorney, complaisantly refused to serve quo warranto writs on the trustees of the A. M. A. All sorts of technical quibbles and worse methods of evading the issue were indulged in by the A. M. A. officials, but without avail. I have succeeded in getting a decision which I feel confident will be sustained by the Supreme Court, inasmuch as my contentions were based upon Supreme Court decisions. *Should the Supreme Court sustain the lower court, I will have the pleasure of presenting on a platter to the membership of the American Medical Association at the next meeting the ownership of the Association, of which a self-seeking, arrogant oligarchy robbed us nearly fifteen years ago at St. Paul.*

It has taken three years and a half to win a decision against as selfish a gang of medical politicians as ever feared to submit a doubtful cause to a fair and impartial hearing. At present writing the courts have decided that *the operations of the American Medical Association for nearly fifteen years have been illegal.*

The contentions above mentioned were embodied in the resolutions offered by me at the Danville meeting of the Illinois State Society and opposed by the "gang", as well as by certain alleged "insurgent" leaders.

## Selected Articles

### SURGERY IN THE AGED.

BY AP MORGAN VANCE, M. D., LOUISVILLE, KY.

In many presumably surgical text-books the dogmatic statement appears that infants and the aged are to be almost universally regarded as unfavorable and unsatisfactory surgical subjects; in current surgical literature similar assertions are not uncommon. As a matter of fact, reiteration of the dictum has hitherto been so frequent, that it appeared the height of presumption for even an experienced surgeon to offer open opposition or frank criticism thereon.

In so far as the dictum mentioned relates to major surgery in infancy and early childhood, the subject is creditably presented and carefully analyzed by Q. W. Hunter in the *American Journal of Surgery*, March, 1913. He not only frankly criticizes and openly opposes prevailing opinion, but by accumulated evidence clearly refutes the claim that even major surgery in the young should necessarily be attended by greater risk, or followed by higher immediate or remote mortality than that which obtains in the adult under similar circumstances.

While the premise is admitted without dispute that surgery in general, and surgical treatment in particular, have made enormous strides toward the acme of perfection during the last few decades, there yet remain to be elucidated not a few intricate etiological, pathological and technical problems, consideration of which is excluded by the scope and intent of this dissertation. The treatment of surgical lesions in the aged, however, appears not to have participated in the advances to which allusion has been made, and the erroneous dictum which has from time to time immortal been accepted still prevails in greater or less degree, *i. e.*, that individuals of advanced age are almost invariably unfavorable and unsatisfactory surgical subjects.

The primary objects of this review are (a) to direct re-

newed attention to the fallacy of the dictum mentioned, and (b) to cite sufficient evidence to substantiate the contention that, other things being equal, even major surgery in the aged may not only be safely undertaken, but should necessarily be attended by no greater immediate nor remote mortality than that which obtains following similar procedures upon younger subjects.

It is a matter of common observation that healing of corneal wounds in the aged occurs with distinctly greater rapidity than in young subjects, and that ophthalmic surgeons undertake cataract extraction in the young with much greater fear as to the ultimate outcome than similar operations in the aged. This being true of delicate ophthalmic surgery, it is extremely difficult of appreciation why the rule should not apply to less dangerous operations upon other structures; moreover, no one has ever advanced a quite tenable, understandable and demonstrable hypothesis in explanation of these apparent discrepancies.

Grouping all individuals the subjects of lesions for which surgical intervention is undertaken, the average age at which patients are subjected to operation may be approximately stated as thirty years, this estimate being based upon personal observation and analysis of a large number of operative cases recorded in surgical literature. The youngest patient upon whom a major surgical operation was ever successfully performed was an infant one day old (celiotomy), and the oldest according to available records was one hundred and seven years (herniotomy).

An important question in this connection, the solution of which is practically impossible, is at what average period in life does so-called old age begin? It is an indisputable fact that one individual may exhibit unmistakable evidences of approaching senility at the age of ten years, whereas another may appear youthful at one hundred. Grubbe agrees that this average period must necessarily remain indefinite, since the systemic changes which cause senility occur at various ages in different individuals. "The broken-

down, decrepit day-laborer, whose life has been one of hard work and inadequate nourishment, is more senile at fifty than a Gladstone at eighty."

Some of the changes which are presumed to occur with advancing age are: The cellular elements become more diminutive without appreciable change in structure. The spleen, the lymphatic glands, the intestinal villi, etc., greatly diminish in size. Later there may occur fatty degeneration of muscular, nervous and glandular tissues, with calcareous deposits in various structures, resulting in progressive impairment of physiological function. As a result of inflammation in the aged, similar cellular and vascular changes occur as in younger subjects; but the cellular elements being smaller do not so quickly return to the embryonic type as in the young.

While it is obviously impossible to formulate any definite rule as to the average period at which man becomes senile or aged, for the purpose of this review I will arbitrarily utilize the term "aged" to represent eighty years or older, the reason therefor being that major surgical operations have always been presumed to be most unsatisfactory in individuals thus far advanced in years. The literature contains thousands of examples where patients were successfully operated upon between the ages of sixty and seventy-nine, but all these are necessarily excluded from present consideration by the limit mentioned.

Based upon mortality statistics it would appear that the most successful results should be expected to accrue from surgical intervention undertaken upon patients from twenty-five to fifty years of age, *i. e.*, that period intervening between the beginning and termination of robust adult life. However, the pertinent fact must not be permitted to pass unobserved that most statistical records are more or less unreliable, and those representing surgical mortality records are not entitled to unqualified exception. A favorable outcome (recovery) is oftentimes reported shortly after the patient leaves the operating table, and when death en-

sues a few days later the surgeon does not correct his statistics since by so doing he would be subjected to the humiliation of recording a fatal termination subsequent to an apparently brilliant and carefully executed surgical procedure. It becomes obvious, therefore, that if the post-operative history of every patient—infant, adolescent, adult and aged—could be carefully followed and the ultimate outcome accurately ascertained, extensive revision would unquestionably be required in the operative mortality statistics of every surgeon in the world.

Over twenty years ago attention was directed to the fallacious prevailing opinion anent the recuperative power of the aged by Humphrey, of England, who had observed many striking instances of the rapid healing of ulcers, wounds, fractures, etc., in elderly individuals. Shortly thereafter Blum collected a series of fourteen major surgical operations performed upon old people in only one of which a fatal termination ensued, and concluded from his analysis of these cases that (a) the chances of success were fully as great in the aged as in younger subjects, that (b) the result depended less upon the age of the patient than the previous condition of health, and that (c) surgical intervention was not only indicated when life was directly menaced (*e. g.*, in strangulated hernia, neoplasms, etc.), but even when there was less imminent danger.

In undertaking a major surgical operation upon a patient of the age stipulated herein, the surgeon should not overlook nor ignore several essential fundamental principles, a few of the most important being:

- (1) That where possible repeated examination, careful anamnesis and prolonged observation prior to operation, to ascertain the exact present and previous physical condition of the patient, are important desiderata:

- (2) That after the patient has been admitted to the hospital and before operation is undertaken, appropriate supportive and reconstructive treatment should be instituted (under immediate direction of the surgeon) and be con-

tinued sufficiently long to restore or improve impaired physical equilibrium in so far as it may be possible:

(3) That while general anesthesia may be permissible in certain instances if there be no gross lesion of the heart, liver or kidneys, where it is practicable surgical operations upon the aged should be performed under some appropriate method of local anesthesia:\*

(4) That the fact must not be forgotten the aged, being less susceptible to pain, more serious operations may be safely undertaken with local anesthesia than in younger individuals:

(5) That the aged as a rule are hypersensitive to cold, therefore the operating room should be maintained at a high temperature until dressing is completed, and precautions should be observed to avoid chilling of the surface by drafts or otherwise during and following the operation:

(6) That ordinarily the aged withstand the loss of blood badly, therefore adequate precautions should be taken to prevent undue hemorrhage during the operation, always bearing in mind that in elderly individuals there is oftentimes a decided tendency toward secondary oozing, the control of which may sometimes be difficult because of pre-existing vascular changes:

(7) That operative manipulations in the aged should be executed with the greatest care so that instrumental traumatism and shock may be minimized, and the surgical procedure undertaken should be completed within the shortest

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\*While it would be distinctly out of place to review herein the various methods of local anesthesia, I suggest that the so-called anoci-association method of Crile is worthy of serious consideration in this connection. Results thus far reported under this plan seem to justify more extensive utilization thereof than has hitherto obtained. Briefly, the method consists in the use of nitrous oxide gas and oxygen to induce unconsciousness or insensibility, and the local injection of novocaine for the production of anesthesia in the field of operation.

possible time consistent with perfect technic and requisite asepsis:

(8) That while recuperative power may be unimpaired, the aged quickly succumb to virulent infectious processes, therefore the utmost care must be exercised to prevent and limit extension of microbic invasion:

(9) That in the aged post-operative nourishment is of great importance, and careful feeding should be commenced as soon as the patient recovers from operative shock, nourishing and easily digested food being permitted in ample amount:

(10) That, finally, every effort should be made to promote recuperation and hasten operative convalescence so the patient may be permitted to leave the bed at the earliest moment possible, since in the aged prolonged period of bed-rest, even in normal health, may be extremely hazardous for reasons too obvious to require specific mention herein.

It has been claimed by some observers that while the nutritive forces in the aged may be failing, those connected with repair may remain in normal condition. If there exist vascular disease, shock is not well borne and reaction is feeble and slow. However, if the heart and nerves are normal, with pulse firm and regular, there need be no hesitancy about operating. Moreover, there are certain conditions which give the aged a positive advantage over the young, *e. g.*, excitability is lower and slower, serious hemorrhage is less likely to occur, acute inflammatory troubles are less common, sensation is more obtuse, therefore the aged are less subject to acute nervous affections, tetanus, painful muscular spasms, etc.

In the opinion of Moore age is no objection to operation, and he has knowledge of no deaths flowing surgery that might be attributed to the age of the patient. From a surgical standpoint he considers that a man is as old as his kidneys (instead of his arteries) and calls particular attention to the necessity of investigating the condition of these organs. Smith agrees that in clean, non-malignant elective



operations surgery in the aged carries but slight mortality, that the principal points to consider are the condition of the heart, the arteries, the lungs and kidneys, rather than the number of years the patient has lived. He advocates anesthesia by the ether-drop method, and believes strychnine, adrenalin and aseptic conduct of the operation markedly lessen shock.

The following details concerning a few hitherto unpublished cases emphasize the fallacy of the dictum to which attention has been directed: An exploratory operation was performed by another surgeon upon a male of eighty for supposed "bladder trouble," the prostate gland being found so markedly enlarged that he refused to proceed further with the operation, believing that to do so would certainly result in death of the patient who appeared at the time to be an exceedingly unfavorable surgical subject. At the age of eighty-one this patient went to Baltimore, Md., and was operated upon by Dr. H. H. Young, who extirpated the second largest prostate gland ever removed—it weighed over one pound. The patient recovered promptly from the operation, but subsequently urinary incontinence was the source of considerable annoyance, especially during the day.

When eighty-three years old this man fell on the ice and sustained a fracture of the femur in the upper third, at which time he came under my observation. The prognosis was unfavorable for recovery from this injury, principally because of the advanced age of the patient. However, with careful attention and nursing he recovered in a comparatively short time, being able to use his limb in twelve weeks. From the twelfth to the sixteenth week he walked about with the aid of crutches, which were then discarded for a cane which has been used ever since. During confinement in bed because of the fracture, he ceased to have urinary incontinence, which is probably explained by the rest afforded the bladder while the patient was in the recumbent position.

Quite recently (March, 1913) in the middle of his eighty-seventh year, this patient fell and fractured his right clavicle. While it was not believed the fragments would ever unite, the ordinary sling and binder were applied. In less than four weeks the patient was discharged well. When carefully examined a few days thereafter, it was almost impossible to determine the point at which the fracture of the clavicle had occurred. It was the best result I have ever seen in fracture of the clavicle, regardless of the age of the patient.

In another instance a male of eighty-six sustained a fracture of the humerus, which healed in about the ordinary length of time, with perfect result.

A woman of eighty-five gave the history of sudden acute pain in the right side of the abdomen. After careful examination a diagnosis was made of acute empyema of the gall bladder and operation was advised. Cholecystotomy with removal of a large quantity of inspissated bile and pus was followed by an uneventful convalescence. This patient not only made a prompt recovery, but lived for several years after the operation.

While these personal observations may be of no especial interest, they are interpolated to demonstrate that (a) old people are not always unfavorable surgical subjects, that (b) especially in fractures of the long bones healing may be expected to occur promptly, the ultimate result being about as favorable as in younger persons, and that (c) in gall-bladder disease surgical intervention may be undertaken with the expectation of securing satisfactory results regardless of the age of the patient. This has been borne out by my experience, although I recognize it is contrary to the generally accepted belief. I recall numerous other personal cases where the outcome of major surgery in the aged was entirely successful, but as the details differ in no essential respect from the foregoing, nothing of value would be added by reporting them.

Moore records the details of two perineal prostatectomies

upon patients aged ninety years. Both recovered promptly from the effects of the operation, and had perfect urinary control when dismissed from the hospital four weeks thereafter. The same author refers to sixty-one examples where other surgeons successfully operated for enlarged prostate in patients between eighty and ninety years of age, the method being about equally divided between the perineal and supra-pubic route. "It would appear from the foregoing that prostatectomy in the aged is nearly as safe as it is in younger men, and is good surgical practice wherever indicated, and whenever the physical condition of the men will warrant it. It is, indeed, remarkable to see how rapidly these very old, and often very infirm, men convalesce" (Moore).

Gross mentions a woman aged one hundred in whom union of a fractured humerus occurred in the usual time, also a woman aged ninety-three in whom a fracture of the upper third of the femur united in seven weeks. Hudson reports two cases of fracture of the femur in women in eighty-one and eighty-two, treated with weight and pulley, sawdust bags (or pillow), with perfect recovery without shortening or deformity.

Hawkins operated upon a man aged one hundred and seven for strangulated hernia. The wound healed by first intention, and the patient was well in two weeks. Tuttle operated at one sitting for double inguinal hernia in a female of eighty-four. The patient recovered promptly, and was well four years thereafter. Peyton cites the case of a female of eighty-four operated upon for right femoral hernia which had existed fifteen years and suddenly became strangulated. Ether and oxygen were used for general anesthesia, Schleich's solution locally. Recovery uninterrupted and satisfactory. The same author also refers to the following surgeons who have successfully operated for hernia in patients between the ages of eighty and ninety-five: Connor, Walker, Mayo, Coley, Willard, Ochsner, Bell and others.

Smith amputated the carcinomatous breast of a female aged eighty-seven. Ether by drop method, axilla not entered, wound closed and healed by primary union. Patient enjoyed immunity from pain, odor and discharge. She died "painlessly from apoplexy several months after the operation." The same author reports cholecystostomy under ether in a female of eighty-two. There was no shock, vomiting nor distension. Drainage was practiced; recovery uneventful; patient living two years thereafter.

Wagner removed a sarcoma of the tonsil by galvanocautery in a female of eighty-nine. Clinical diagnosis confirmed by microscope. The patient recovered promptly, the parts healing in ten days. The author believed this case of more than ordinary interest, not only because of the advanced age of the patient (being the oldest of which he could find record), but also from the rapid healing of the parts after operation, and non-recurrence of the neoplasm.

Homans performed oophorectomy upon a woman of eighty-two, a fifteen pound multilocular cyst being removed. Patient well four years thereafter. Owen executed a similar procedure upon a patient of eighty, and Pippinskold duplicated the operation at the same age.

Sexton successfully operated upon a man of eighty-nine for multiple ano-rectal fistula, and stated he never had a patient do better after operation. He refers to another case in which a twenty-pound myoma was removed from the uterus of a woman aged eighty-five. Owens, of London, mentions a woman upon whom he performed oophorectomy at the age of eighty-seven, and states this is the oldest patient upon whom such a procedure has been successfully executed. Brush removed a sixty-two pound ovarian cystoma from a patient of eighty. Recovery uneventful, patient dismissed from hospital the twenty-fourth day after operation. Johnson refers to a successful oophorectomy upon a woman of eighty-two.

Graham reports several cases where major surgical operations were successfully performed upon patients over

eighty: (1) male of eighty-four, strangulated hernia; (2) male of eighty-six, fracture of neck of femur; (3) male of eighty-three, fracture of neck of femur; (4) female of eighty-three severe laceration of scalp. Harvey mentions a female of eighty-two with Colles fracture, where firm union occurred in twenty-five days. Hutchinson saw a man of ninety with gangrene of the hand and forearm; amputation, normal healing of stump. May operated upon a woman of eighty-five for strangulated hernia; patient entirely well in three weeks.

Bridger cites the case of a male eighty-three with fracture of the ulna which united within a month, also a male of ninety-two with a fractured humerus. The latter patient "remained in bed but three days," and bony union occurred in a month.

One of Blum's patients aged eighty-four recovered after extirpation of a cancerous breast. Another aged eighty-one was successfully operated upon for strangulated umbilical hernia, and another aged ninety-one for femoral hernia. Cartledge reported a successful oophorectomy in a woman over eighty years old.

While the foregoing imperfect review embraces only a few original observations, and a limited number of illustrative examples abstracted from the literature, of successful major surgery in patients over eighty years of age, it is believed sufficient data have been presented to reasonably emphasize the following suggestions:

(1) That based upon demonstrable clinical facts, there appears abundant reason for adversely criticising the dictum so frequently reiterated in ancient and modern surgical literature, that the performance of major surgery upon the aged is invariably attended by greater danger and more frequently fatal than in younger subjects:

(2) That in the surgical treatment of the aged, if the patient be in reasonably good physical condition when operation is undertaken, and provided the necessary modifications in management be not neglected, the immediate and

remote mortality should be no greater than that which obtains from similar procedures in younger persons.—*American Journal of Surgery*.

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## Obituary

S. A. CUNNINGHAM, of Nashville, Tenn., died at a local infirmary in the city of Nashville, Dec. 20th, 1913, at 8:35 p. m., after an illness of only four days. We know that quite a number of our readers, especially those who "wore the gray" from '61 to '65, and their descendants will most sincerely regret to learn of his death, and will mourn with us the sad loss sustained by the South and the Nation.

Sumner Archibald Cunningham, founder, editor and proprietor of *The Confederate Veteran*, was born in Bedford County, Tenn., July 21st, 1843; was married to Miss Laura Davis, of Georgia, Nov. 27th, 1866, and to them were born two children, Mary, who died at two years of age, and Paul D., who was drowned in the Rio Grande, when assisting to survey the boundary line between Mexico and the United States, in July, 1901. He enlisted as a private in Co. B. 1st Tenn. Riflemen, in 1861, and was sergeant-major of his regiment at the close of the war, serving most faithfully from the beginning to the end of the war between the States.

At the close of the war, he was engaged in merchandising in Shelbyville, Tenn., for some ten years, also for a short time editing a paper in Cartersville, Ga. For two years he edited the *Shelbyville Commercial*, and in Oct. 1876 he purchased the *Chattanooga Times*, which he sold in 1880, going to New York and establishing a publication there entitled *Our Day*, which was continued only for a year, when he came to Nashville and was engaged as a special staff correspondent on the *Nashville Daily American*, and while engaged in this work, undertook to aid in getting up funds for the monument erected to Jefferson Davis. In this labor of love he sent out a large number of circulars and leaflets, which

becoming more numerous and extended, he concentrated his labors, which from his earliest manhood had been so sincere, earnest and devoted to the Southland he loved so well, in establishing *The Confederate Veteran*. This publication will ever hold a permanent and unique place in Southern literature, and is known far and wide, throughout the entire South, and largely throughout the United States and abroad. It was established and has been most zealously maintained from first to last, for the purpose of placing before the world, in imperishable printer's ink, the true facts pertaining to the Southern soldier in the terrible and eventful war between the States; securing these important facts of history from the tongues and pens of those who made this history.

In this monumental work he has given most invaluable aid to The Association of Confederate Veterans, the United Daughters of the Confederacy, the Sons of Confederate Veterans, the Confederate Southern Memorial Association, and other smaller organizations connected with a correct version of Southern historical events since 1861. The files of this publication will be a rich and fruitful mine, teeming with nuggets, pockets and the golden dust of TRUTH, in which future historians may delve.

In connection with this work, he was mainly instrumental in, and made possible the erection of the beautiful monument to the gallant hero, Sam Davis, which so grandly graces our State Capitol. He was also the originator, and most liberally aided in placing the memorial tablet in the State Capitol of Indiana, in memory of Col. Owen, for his kindness to Confederate Prisoners of War at Camp Morton. While aiding in the erection of memorials of these two gallant and heroic soldiers, one who "wore the gray", only a private in the ranks; and the other "who wore the blue", with the rank of Colonel, he was building in the hearts of his countrymen, both of the South and the North, a most honorable and greatly to be envied memorial to himself.

Although he had thrice quaffed the bitter cup of sorrow

in returning to the dust the loved ones of his heart and soul, his infant daughter, his wife and help-meet in the glory of her womanhood, and his son Paul, just on the threshold of a useful and glorious young manhood, he ever maintained a cheerfulness, a brightness, and a most admirable sunny disposition all of his days. He was the friend of everybody with whom he came in contact, young and old, rich and poor, of high or humble rank, in joy or in sorrow, he always had the most kindly sympathetic greeting for one and all. His every effort at all times not only seemed, but was to do a favor, a kindness in either word or deed to each and every one with whom he came in contact. He never spared himself when he could help a fellow man. Honorable, upright, courageous, generous, faithful, and ever true to himself, his fellow man, and his glorious ideals, he made friends wherever he went, and "Living in the house by the side of the road, he helped his fellow man." He had more friends, young, old and middle-aged; male and female; black and white, than anyone I ever knew.

As a member and an officer—an elder in the Cumberland Presbyterian Church, he was a true Southern Christian gentleman, and at all times was most sincerely devoted to DUTY, in the Church as in the army, on the firing line or in bivouac, on the march or on guard duty, as a citizen at home or on the lines of travel, as an editor, a historian, and a correct reporter of events, he rarely if ever failed in discharging any duty committed to his care; and he passed from earth to the great beyond with as much bravery and that courage endowed by faith, as he showed on the very slope of the breastworks firing the guns handed him into the very faces of the enemy, on that terrible field of battle, near the "old gin house" at Franklin, on the last afternoon of Nov. 30th, 1864. Well indeed could he exclaim in the words graven on the tomb of a fellow soldier, a press associate, and an intimate friend:

"This life of mortal breath  
Is but the way to the life Elsyian,  
Whose portal we call death."



DR. ALEXANDER O. ERSKINE, pioneer physician and Confederate soldier, died Saturday afternoon, December 13, 1913, at 4 o'clock, at his residence, 1466 Monroe Avenue, in Memphis, Tenn. Dr. Erskine was 81 years of age. His death was due to general debility and to a stroke of paralysis he suffered late in life. His wife and six children were at his bedside when death came. Dr. Erskine is survived by his wife, four sons, John, Gordon, William, and Albert R., of East Aurora, N. Y., and three daughters, Misses Loulie and Laura, and Mrs. S. F. Gill.

Dr. Erskine for more than 50 years has been one of the best known physicians in Memphis and in Western Tennessee.

He came to Memphis in the year 1858, and began the practice of medicine, which he continued until the breaking out of the war, when he enlisted in the armies of the Confederacy as a surgeon. He served with the Fifteenth Tennessee Infantry, under Col. Tyler. Later he served with the Second Tennessee, under Col. Robertson in Lucius E. Polk's Brigade of Gen. Pat Cleburne's division in Hardee's famous corps. He was in the battles of Murfreesboro, Tenn., and Perryville, Ky.

He had charge of an army hospital at LeGrange, Ga., during the latter part of the war and was paroled at Covington, Ga., in 1865. He returned to Memphis, where he resumed the practice of his profession.

He remained in the city throughout every epidemic of yellow fever, including the dreadful scourge of 1878, when the city was almost depopulated by death and the desertion of the residents.

Dr. Erskine was born in Huntsville, Ala., on September 26, 1832. He was of Scotch-Irish descent, a son of Alexander and Susan Russell Erskine.

He attended the schools in his native state and was afterward graduated from the University of Virginia in the classical course and then went to New York, where he was

graduated from the medical department of Columbia University. He afterward had several years' experience in hospital work in that city.

He was considered almost the dean of the medical profession in Memphis, being one of the oldest practitioners. He was professor of obstetrics and diseases of children in the Memphis Hospital Medical College from 1885 to 1906; was dean of that college from 1868 to 1873, and was on the staff of the Memphis City Hospital from 1902 to 1910.

He was a member of the Memphis and Shelby County Medical Association, of which he had been President several times, and also a member of the Tri-State Medical Society and of the Tennessee State Medical Association.

He contributed many valuable articles to the leading medical journals.

Dr. Erskine was a member of the Presbyterian Church and was an elder in the Second Presbyterian Church of Memphis for forty-eight years. He was married twice. His first wife was Miss Augusta Law White, whom he married in December, 1861. His second marriage was to Margaret Louisa Gordon, in 1872.

Dr. Erskine's death leaves Dr. G. B. Thornton as the only antebellum doctor in Memphis, and Dr. Thornton was greatly affected when informed of the death of his old friend.

"He and I were most intimate," Dr. Thornton said, "for much more than a generation, and it was our custom for years to pay occasional social visits, each to the other. I never knew a better, a more consecrated or a gentler man than Dr. Alex. Erskine. If the doctors of today would follow his ethical path the profession would be much better off."

A fond and loving father and husband, an humble and upright citizen, devoted to his profession, a true Christian gentleman, his loss will be greatly deplored.

## Reviews and Book Notices

**Anatomy and Dissector in Abstract**, by Stewart L. McCurdy, A.M., M.D., author of "Oral Surgery," "Orthopedic Surgery," "Medical and Surgical Emergencies," "Arthrosteopedic Surgery," Professor of Anatomy and Surgery School of Dentistry, University of Pittsburgh. Thirty-one illustrations, fourth edition. Price, \$1.00. Medical Abstract Publishing Company, Publishers, 8103 Jenkins Arcade Building, Pittsburgh, Pa.

"This flexible leather vest pocket abstract of Gray's Anatomy contains about 220 pages. In this small space the author has arranged in a clear and concise manner the most essential points of anatomy. It is not a text-book and will not take the place of the larger works from which the *first lesson must be learned*, but to the student attending lectures, or to one who wishes to review, the book will be of great value."

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**Pathology, General and Special.** A manual for Students and Practitioners. By John Stenhouse, M.A., B.Sc. (Edin.) M.B. (Tor.), formerly demonstrator of Pathology, University of Toronto, Toronto, Canada. Second edition, revised and enlarged; including selected list of State Board Examination Questions. 12mo, 278 pages, illustrated. Cloth, \$1.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

The medical student of today, from the time he enters college until he graduates, is confronted with a bewildering mass of scientific information, the main facts of which he is expected to assimilate in four years. Even after he enters professional life he must still continue his studies in order to keep himself abreast with modern progress. To be able to grasp intelligently the new advances as they come and make practical application of them, he should have the fundamentals of the subject clearly and prominently in mind. To this end the Epitome is admirably suited; it is not a means of escape from wider or deeper reading, but an incentive and trustworthy guide to it. Stenhouse's Epitome of Pathology is unusual in the excellence of its text,

illustrations and arrangement, and the questions at the end of each chapter will be found a strong mental stimulus, for they bring out in bold relief the important points throughout the volume.

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**A Practical Treatise on the Causes, Symptoms and Treatment of Sexual Impotence and other sexual diseases in men and women, by William J. Robinson, M. D., Editor of "The Critic and Guide." Second edition, 8vo, cloth, pp. 422. Price, \$3.00. Critic and Guide Publishing Co., Publishers, 12 Mount Morris Park, New York, N. Y., 1913.**

Dr. Robinson has always entertained peculiar ideas about books, and has not hesitated to express them, and claims that "no book has a right to exist which has not for its purpose the betterment of mankind by affording either useful information or healthful recreation."

No American authority has given more serious thought to the subject of sexual diseases than the author of this volume; he has given to us in it the best that in him lies. No physician who has had to combat this distressing condition and those conditions dependent upon it has any doubt of its serious importance. And we all recognize the weakness of the literature on the subject. We may not entirely agree with Dr. Robinson in one and another of his views; we believe that his strong personality makes him rather positive and emphatic and that there is a possibility of taking issue with him without necessarily being in the wrong every time; but this book which he has given us is so entirely along the line of our opinions that we feel great satisfaction in it. This is an eugenic age, a sensible age, and Dr. Robinson takes a sensible view of things which have not been sensibly considered; nowhere has he shown this to better advantage than in this volume on a difficult subject. We believe that the general practitioner and those specialists whose ego has not been overtrained will find much of value in the book, at least they will find

in it an incentive to further work and means which will be of practical assistance if they will avail themselves thereof.

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**E. Merck's Annual Report of Recent Advances in Pharmaceutical Chemistry and Therapeutics.** Vol. XXVI, 1912. 8vo, paper, pages 558. Merck & Co., Publishers, 45 Park Place, New York, N. Y.

This latest issue is even larger than last year's. The first article is a most instructive discussion on Lecithin, in which is brought out a good many not generally known uses for this valuable remedy. The volume is also supplemented by a timely article by Professor Dr. R. Heinz, of the Pharmacological Institute of the University of Erlangen, on the "Standardization of Digitalis Preparations."

The edition is limited, and is distributed principally among teachers of materia medica and therapeutics, and medical and pharmaceutical libraries. Generally, however, a few copies of each issue are left over after this special distribution, and physicians and pharmacists who make early application can obtain a copy by remitting the forwarding charges of fifteen cents, in stamps, no charge being made for the volume itself.

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**Science and Education**, a series of volumes for the promotion of scientific research and educational progress. Vol. II. Medical Research and Education, 8 vo. cloth; pp. 536. The Science Press, Publishers, New York, N. Y., 1913. Edited by J. McKeen Cattell.

This volume comprises a series of papers and addresses, by the following able authorities, the citation of whose names is more sufficient to attract interest than any brief abstract or review on our part. The 28 various subjects pertaining to Medical Education and Research are by such eminent writers as Richard Mills Pearce, William H. Welch, W. H. Howell, Franklin P. Mall, Lewellys F. Barker, Charles S. Minot, W. B. Cannon, W. T. Councilman, Theobald Smith,

G. N. Stewart, C. M. Jackson, E. P. Lyon, James B. Herrick, John M. Dodson, C. R. Bardeen, W. Ophuls, S. J. Meltzer, James Ewing, W. W. Keen, Henry H. Donaldson, Christian A. Herter, and Henry P. Bowditch.

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### *Editorial.*

#### YULETIDE AND NEW YEAR.

"Christmas comes but once a year,  
As we go bobbing around;  
And when it comes it brings good cheer,  
As we go bobbing all around."

Christmas has come and gone again, and "New Year's" too, will be among the things that were, when this first number of the Thirty-sixth Volume of *The Southern Practitioner* reaches our many kind and evidently patient readers—well they are Doctors, and know how to be patient, as well as how to do patients—or they would not have borne with me so many years. I know that a few of my readers who have been with me all these years, will agree with me, that for some years past Christmas comes around mighty quick; in fact, it seems that one is scarcely gone by ere another is right at hand. Three score and more years ago, how the days would drag, say from early in October until Christmas Eve! As the happy-happy time would get nearer and nearer, it did seem that the great day would be more and more laggard in its march; and then how we would begin to count the weeks and days as they would lag along. But now! the echoes of one are scarcely gone before the preparation, the bustle among the elders, the bright and joyous anticipations of the younger element, are right on the tapis. Alas, and alas! that the glorious legend of "Old Kris" or "Santa Claus", by whatever name you call him, the memory yet lingers, should ever pass from our mental vision! How we used to listen for the jingle of the sleigh-bells, the shrill chirrup to "Prancer," to "Dancer," to "Dunder," and "Blixen!" What visions and dreams of coasting sled and skates; packs of fire crackers, packages of torpedoes; drum and pocket-knife; painted wagon and tin-barrel gun; orange, apple, and candy or cake would rampage through our youthful brain cells as the drowsy god would press down our unwilling eyelids!

Well, they are all of the past, the happy past; but I wish to say right here, of the three and seventy Christmas morns that have

passed over this now wrinkling brow, all but five of which were enjoyed in the "City of Opportunity"—four of these "way down South in Dixie," and the other in Kentucky, not one was as glorious, grand, and enjoyable as that of 1913. The Christmas spirit was truly abroad in the land. It was a time when everyone showed by both word and deed that they wanted to remember kindly some other person or persons; it was truly a day when the spirit of passing the good cheer on was rife in the land. It was a day of good will to all. The "Elks" opening the ball on Christmas Eve made glad the hearts of nearly three thousand little ones, the "Good Fellows" began their work on Christmas morning and with over 500 well prepared baskets containing necessities and toothsome dainties for over two thousand palates of old and young; the Salvation Army with their annual dinner and baskets of food for as many or more; the Volunteers of America distributed 116 well filled baskets of good things, fed 150 persons at the Emergency Home, and furnished 200 articles of clothing, and 18 pairs of shoes to men, women and children; the "Old Soldiers" at the "Home" were supplied with a splendid dinner and presents from "The Daughters of the Confederacy" and their friends; the Boy's Club of over 250 were royally entertained by Mr. Skalow-ski, the large majority of whom were newsboys; the various Orphan Asylums, and even the prisoners in our jail and penitentiary were made glad by a real Christmas dinner, and the unalloyed joy, gladness and happiness that pervaded every household, far exceeded anything in preceding years.

It was the quietest Yuletide Holiday that ever passed over the city, in proportion to the number of inhabitants, quiet but enjoyable, a time of "peace on earth and good will to men," and **The Southern Practitioner**, with this number entering on its thirty-sixth year, sincerely wishes that each of its readers and friends may have had a right merry Christmas, filled to overflowing with every good thing as was apparent in every household in the Capital City of the Volunteer State.

And now for the New Year. The one just closed, has had three important events on its record. A Democratic President installed in the White House, who with a congenial Democratic majority in both Houses of Congress has been enabled to pass a rational tariff bill and a most rational measure pertaining to our currency, and a bright and prosperous New Year is before us. Thanking our many friends who have so kindly sustained our journalistic efforts for the past thirty-five years, we are more than gratified to state that no year in all the preceding thirty-five opened so auspicious as the present. A few are yet living who became our patrons in the year 1879, but

many have passed over the river, but their places have been filled by others. Sons of those who came to us then are with us now, alumni of the Medical Department of the University of Tennessee, and of the University of the South, whom we have had the pleasure of instructing in the principles and practice of medicine from five to twenty-five and thirty years ago, are among our patrons now, and in a few instances sons of those pupils of earlier days, we were very greatly pleased to have also taught, are to-day among our friends and readers. These facts alone are efficiently stimulating to command our most earnest and zealous efforts in the coming year.

Finally, the great inter-oceanic canal, made possible by the action of sanitary methods, instituted and directed by an alumnus of the University of the South, that have developed during our editorial career, will turn a tide of trade and travel through our Bonnie Southland that will make its machinery hum, its fields bloom and blossom with the great and essential staples, cotton, tobacco, hog and hominy, its herds of cattle, flocks of sheep, droves of horses and mules filling our coffers to overflowing, and our mines of copper, coal and iron lending their influence to the financial welfare of our people, we may with the utmost confidence of our most sanguine wishes being realized, say to our many readers and friends, "may you live long and prosper"; and may the Good Year of 1914 be the most enjoyable and successful of your lives.

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**A Tale of Taka-Diastase:**—To multiply by two the medicinal efficacy of a powerful diastasic ferment is a notable accomplishment. And that is what scientific investigation has done for Taka-Diastase. The result, as may be presumed, was not achieved at a single fortunate stroke. It was the culmination of years of study and experimentation. The story is briefly told on the fourth or last cover page of this issue of *The Southern Practitioner*, over the signature of Parke, Davis & Co. It bears this caption: "We Have Doubled the Strength of Taka-Diastase." The reader is advised to turn to this announcement, which should prove of interest and value to every practitioner who faces the problem of amylaceous dyspepsia.

A word here with reference to the therapeutic application of Taka-Diastase may not be amiss. The product may be prescribed with advantage in the treatment of any pathological condition in which the salivary digestion is inhibited or impaired—in any case of gastric or intestinal disorder in which the starches are digested with apparent difficulty. It is employed with good results in the dietetic treatment of subacute and chronic gastritis; in infantile



diarrhea, especially in cases in which the diarrhea alternates with constipation; in malnutrition or inanition; in the vomiting of pregnancy; in diabetes due to pancreatic disease.

A very large proportion, more than a majority of the cases of indigestion in this country are due to a failure in digesting the starches—comprising so large a proportion of our food. Failure in this particular results in a fault or failure in digesting the albuminoids, proteids, etc. This invaluable preparation promotes, aye, secures digestion of the starches, and has given the most satisfactory results in many cases.

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**The Constant Need for an Effective Tonic:**—It is a fact not generally recognized, but very true nevertheless, that the class of remedies most frequently used by the practitioner is that made up of the tonics or reconstructives. This is not so surprising, however, when we stop to consider that the great bulk of ailments which lead people to consult their physician, have their origin in some depression, derangement or "falling off" in bodily vitality. Naturally, in instituting treatment for such afflictions, the practitioner seeks to stimulate faltering functions, increase the activity of weakened organs and restore all the energy he can to the whole organism. To do all this and produce permanent, not temporary, results, requires a remedy that possesses beyond all question tonic and reconstructive properties.

Among those that have been found especially capable of up-building the body and accomplishing changes permanent in character, Gray's Glycerine Tonic Comp. has long stood first. The reason for this popularity is found at once in the remarkable efficiency of this product, for when properly administered it is a dependable means of effecting prompt and substantial results in atonic indigestion, gastro-intestinal catarrh, chronic bronchitis, incipient tuberculosis, neurasthenia, nervous disorders in general and wherever an efficient restorative and reconstructive is needed. For over 16 years "Gray's" has been at the command of the profession, and countless physicians derive genuine satisfaction from its use because they have found it one of the few remedies that measures up to all that the word tonic means in modern therapeutics.

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**Reputable Manufacturing Pharmacists Do Not Furnish Emmenagogues for Immoral Purposes:**—Recently one of the leading manufacturing pharmaceutical houses received a letter upon the letter-head of a retail druggist, but signed by another name, followed by

the word "druggist." The person signing the letter may have been a clerk or successor of the druggist. The letter was as follows: "There is practically no sale for your Emmenagogue Improved Pills, as few ladies know anything about them, and we can give no advice, as we know nothing about them ourselves as to dose, etc. Please let us know by return mail and tell us how to use, dose, etc." Reply was made to the pharmacist whose name was on the letterhead, and was as follows: "We have our doubts about Mr. ——— being a druggist, for we cannot imagine any druggist not knowing that it is not only immoral, but criminal, to sell an emmenagogue except upon a physician's prescription. We believe that every druggist who sells an emmenagogue direct to the consumer is put upon his notice that it will be used for an immoral and criminal purpose. Emmenagogues on our list are intended exclusively for the prescription trade, and we never knowingly sell them for popular use or to be recommended and resold as remedies for female complaints, etc."

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**The Element of Uncertainty:**—In the treatment of disease the element of uncertainty with special reference to individual idiosyncrasy, must always be considered, but the element of uncertainty as to the therapeutic action of a remedy can be eliminated providing ordinary care is exercised in selecting drugs or remedies which are not inert and have proven their efficiency.

For over 45 years, Hayden's Viburnum Compound has maintained its reputation as therapeutically efficient in the treatment of Dysmenorrhea, Menorrhagia, Post-partum Pains, Puerperal Convulsions and in pain resulting from spasmodic contraction.

It is a well known anti-spasmodic and as it contains no narcotics nor habit forming drugs, no disagreeable after effects is the result of its administration.

Given in teaspoonful doses, administered in boiling water, it will not disappoint you thus eliminating the element of uncertainty, and as it is not a secret remedy, but a carefully compounded and ethical pharmaceutical, it will render most satisfactory results in those conditions wherein especially indicated.

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**The Pneumonia Convalescent:**—While the course and progress of acute lobar pneumonia is short, sharp and decisive, the impression made upon the general vitality is often profound, and apparently out of proportion to the duration of the disease. Even the robust,

sthenic patient is likely to emerge from the defervescent period with an embarrassed heart and general prostration. In such cases the convalescent should be closely watched and the heart and general vitality should be strengthened and supported, and this is especially true as applied to the patient who was more or less devitalized before the invasion of the disease. For the purpose indicated, strychnia is a veritable prop upon which the embarrassed heart and circulation can lean for strength and support. As a general revitalizing agent is also needed at this time, it is an excellent plan to order Pepto-Mangan (Gude), to which should be added the appropriate dose of strychnia, according to age, condition and indications. As a general tonic and bracer to the circulation, nervous system and the organism generally, this combination cannot be surpassed.

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**Panopepton—The Food the Doctor Knows:**—The physician knows what Panopepton is—its contents of actual dry solids, ratio of protein to carbohydrate, proportion of inorganic salts; knows the "state of the protein" and of the carbohydrates, and how attained. Panopepton made its first appeal to the physician upon these data, definitely stated.

Now, twenty years later, Panopepton is ordered by the physician because he also knows well from experience what it will do for his patient—in sparing "energy," in renewing strength, in promoting the treatment by maintaining nutrition. And clinical experience with Panopepton is confirmed in a very striking way by the modern researches in physiological chemistry.

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**A Reconstructive After Winter Diseases:**—The unanimity of opinion among medical men in choosing cod liver oil as the reconstructive par excellence after diseases of the respiratory tract proves beyond doubt its value.

The only question which can arise in connection with cod liver oil's employment is the form in which to give it, and this question has been settled in the minds of those physicians who prescribe Cord. Ext. Morrhuæ Comp. (Hagee). With this product the patient enjoys every advantage of the raw oil, but is spared its nauseating effects.

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**Pil Cascara Comp: Robins:**—These pills are just so much different from the average Cascara pill, that their reputation for therapeutic action has been its chief source of commendation for the past 20 years.

In the first place it contains no Belladonna to dry the secretions

nor Strychnine to poison. Robins Cascara Pil Comp. is composed, of the following ingredients:

|                  |          |                  |          |
|------------------|----------|------------------|----------|
| Cascara .....    | 1-2 gr.  | Colocynth .....  | 1-4 gr.  |
| Podophyllin..... | 1-16 gr. | Hyoscyamus ..... | 1-12 gr. |

These pills are also compounded in a stronger form, containing four times the strength of the above formula. These evacuants encourage and stimulate flow of the secretions and unlike many laxatives or cathartics, they do not leave the alimentary tract in a condition of atony after their use.

A trial of these pills is a most satisfactory method of determining their value and the most convincing argument as to their therapeutic efficiency.

A. H. Robins Company, Richmond, Va., will be glad to send you samples on request. Write them.

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**Danger Due to Substitution:**—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of “just as good” than the scientifically standardized Eucalyptol. The more recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No “Just as Good” allowed.

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## Selections

**THE TREATMENT OF ARTERIOSCLEROSIS AND HIGH TENSION:**—The subjects of arteriosclerosis and high tension have recently attracted considerable attention, and the discussions at the Medical Society of London and at the Section of Balnéology and Climatology of the Royal Society of Medicine raised several points of considerable interest. The introduction of mechanical methods of estimating arterial tension and their adoption almost as a routine method have also given rise to many investigations as to the significance

of alteration of the tension under varying circumstances. The term arteriosclerosis has been rather loosely applied to any thickening and rigidity of the vessel wall, and the etiology is by no means simple, several factors being concerned in its production. The physiology and pathology of advancing age have constantly occupied the observations of physicians. It has been truly stated that old age may be a "state," or a "disease," but the dividing line between these two conditions cannot be defined with accuracy. In estimating the physiological age of an individual stress has always been laid on the state of the arterial walls, and the well-worn phrase, "a man is as old as his arteries," has been accepted with more confidence than it really deserves. That arteriosclerosis is one of the most obvious manifestations of old age is generally accepted, but exactly how the change is brought about is still a matter for investigation. It is accepted that certain constitutional disorders may hasten the process, as gout and rheumatism. Syphilis, too, is a frequent cause of early vascular degeneration, and high living—i. e., excess of food and alcoholic drinks—also has an important bearing. To these causes must be added the physical and mental strain of modern life, also autointoxication, probably largely due to faulty digestive processes. Accompanying the changes in the vessels an increase in arterial tension is observed. The normal systolic pressure from eighteen to thirty years of age may be accepted as being from 110 to 140 mm. Hg., whilst between sixty and seventy years of age 130 to 165 mm. may be taken as the usual physiological measurement. At one period it was apparently assumed that if the tension was abnormally high, say 200 mm. and upward, means should be taken to attempt to lower it, and various drugs were tried, but with only partial success. Now, however, this method of procedure is not universally adopted.

Many of the points alluded to were carefully reviewed at the discussions mentioned. Dr. E. De Havilland Hall, who

introduced the subject at the Medical Society of London, after reviewing the various conditions causing arteriosclerotic changes in the blood-vessels, laid stress on the importance of regulation of the diet, and relieving mental strain, and he considered that autointoxication was a powerful etiological factor. He was of the opinion that vasodilator drugs had been indiscriminately and injudiciously employed, and gave support to the view that high pressure was an effort of nature to maintain the balance of the circulation in adverse circumstances, and that it should not be interfered with unless there were reasons, such as angina pectoris or headache, to justify the employment of these drugs.

Sir Lauder Brunton introduced a new element into the discussion by referring to the condition of the blood in cases of high tension. He was of the opinion that, when considering this condition and the means of lowering it, attention must be directed not only to the power of the heart and the contraction of the vessels, but also to the viscosity of the blood, which, by interfering with the easy circulation through the capillaries, would oppose a resistance at the periphery, and thus raise the blood-pressure in general. He had found that bleeding or the administration of oxygen was beneficial. Dr. A. P. Luff maintained that the most important factor in treatment was to diminish the production of toxins in the gastrointestinal tract and their absorption therefrom, which was affected by insuring a free action of the bowels and a reduced consumption of meat and alcohol. In a paper read before the Balneological Section of the Royal Society of Medicine, Dr. A. Mantle expressed opinions which were in accord with those held by Dr. De Havilland Hall and also by Sir Thomas Oliver, namely, that supernormal arterial pressure is not itself a primary condition to be attacked or controlled as such.

One of the most interesting points in connection with arteriosclerosis and high tension and their treatment is the part played by autointoxication. If this process can be

prevented or controlled benefit will naturally follow. The regulation of the diet is one of the indications to be studied, and most physicians are of the opinion that red meats should be avoided, and that alcohol, tobacco, and a large amount of tea should be forbidden. Equally important is the necessity of clearing the bowels of all mucus and food matters. Herein probably lies the advantage of hydrotherapeutic measures as adopted at the spas. Regular purgation is beneficial, and waters containing a fair proportion of common salt, the sulphates of sodium and magnesium, and free carbonic acid are to be recommended; to this must be added the general regime of a spa diet and exercise, which is doubtless a powerful factor in the benefit derived from a course of treatment at the well-known spas, both English and foreign. Whether the natural waters have a more potent effect than the use of aperient substitutes has been much discussed, but the general opinion seems to be that a water taken at the source has a more powerful effect than a similar mixture made artificially. The discovery of radium in certain waters has strengthened the contention that the natural waters are superior, both for the purpose of drinking and bathing. Effervescing baths are believed by many physicians to have a more marked effect on lowering blood-pressure than ordinary water at a similar temperature, and the use of the natural medicinal springs by people for centuries indicates the benefits that have been received.

The majority of those who took part in the discussions referred to were of the opinion that the nitrites, iodide of potassium, and other drugs used for the purpose of lowering blood-pressure tension are only temporary in their action and must be given with caution. The general conclusion is that the management of a patient's daily life and hydrotherapeutic measures suited to the particular case are the chief means by which arteriosclerosis may be treated and excessive blood tension lowered.—*Lancet*, May 24, 1913.

**PROPER DOSAGE OF CROTALIN IN THE TREATMENT OF EPILEPSY:**—The irrational theory, which has been spread broadcast, that crotalin wields its therapeutic influence in epilepsy by lowering the coagulability of the blood, has done incalculable harm to confidence in a very useful drug. The use of crotalin efficiently in the treatment of epilepsy is dependent upon more than pumping the patient full of its solution, and taking the swelling and local reaction at the seat of injection as determining its constitutional effect. This means is merely a blind guess, and bears no relationship whatever to its therapeutics in this disease.

Crotalin is a two-edged sword, and its usefulness in epilepsy is dependent upon minimum or moderate dosage: maximum doses are detrimental. This is not idle conjecture, but is something which is patent to every thoughtful observer who has had experience with this drug in the treatment of epilepsy.

From my observation, based on a large number of epileptics, it seems that patients of this kind are rather susceptible to the action of crotalin. It is certain that, as a rule, they are less tolerant of it than are consumptives or asthmatics. It is also true that some epileptics tolerate larger doses than do others, even at the beginning of treatment. Thus, patients with *petit mal* seizures, or those who have *petit mal* and *grand mal* seizures, especially if the former type predominates, are more impressible, to it than are those who suffer from the *grand mal* seizures alone. Therefore, the proper dose of crotalin in epilepsy is more or less of a variable quantity.

A telling experience in the matter of dosage is that of a physician living in a distant State who has an epileptic son, and who wrote me a year ago that he had treated him with crotalin injections. For the first month he seemed to improve, but after that when he began increasing the dose to gr. 1-50, or gr. 1-25, his condition became worse, and the doctor abandoned the treatment. At this period I had suf-



ficient experience with the drug to lead me to suspect that probably his son's condition ~~was~~ due to excessive doses of crotalin, and I informed him so. He began treating him again with smaller and ~~increasing~~ doses, and from last accounts I learn that he is doing much better.

I am at present treating an adult epileptic suffering from a mixed *petit mal* and *grand mal* type of seizures, to whom I gave three 1-165 gr. doses in twelve days, and 1-125 gr. doses four days later. The following evening, after the last dose, he had a major seizure and in the course of three days had nine in all—a group of attacks such as had not occurred for three months before. These rather small doses were evidently too large, for since giving him smaller doses he is doing much better.

In my earlier experience I had a number of cases in which large doses undoubtedly increased the number of seizures, and which were subsequently alleviated by giving smaller ones.

Bearing this comparative difference of impressibility in mind it is always in order to begin with smaller doses in the *petit mal*, than in the *grand mal* seizures. In order to be sure, it is best to begin treatment in all cases with minimum doses, and if at any time during the course of treatment it is found that the attacks are intensified or increased in number, especially if they go beyond the point which they maintained before treatment was resorted to, the dose should be reduced at once.

Moreover it is good practice to make any increase in the dose very slowly and gradually, especially in the beginning, and until partial immunity is established.

What, then, is the general average dose of crotalin given hypodermically? This may be stated to be five minims of the solution, or gr. 1-100. But always begin with one or two minims, gr. 1-500, or 1-250 (or half a minim, gr. 1-1000 in children, or in very irritable *petit mal* cases) every fourth or fifth day, and slowly increase to four or five minims in

the course of six weeks or two months. The dose may be increased to gr. 1-50, or even more in some cases. After the attacks subside give a dose once a week.

In conclusion I would say that a safe rule to estimate the effects of crotalin is by the number and intensity of the seizures and not by the degree of swelling and local disturbances which are produced at the seat of injection, as has been maintained by some. If the seizures diminish in number and severity, the dose is a proper one. If they become aggravated the dose must be diminished, unless their intensification is brought about by other causes.—*Thos. J. Mays, M.D., in Medical Council.*

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**THE TREATMENT OF CHOREA WITH RHEUMATISM PHYLACOGENS**—The *Atlanta Journal Record of Medicine* for May, 1913, contains an article by Block on this subject.

It is well known that some cases of chorea are due to the same microorganism that produces rheumatism, and the frequent association of some of the rheumatic manifestations with chorea is a common observation. At least sixty per cent or more of the cases of chorea have rheumatism within a period of three years before, or three years after, the attack of chorea. Nevertheless some uncomplicated cases of chorea occur, just as some uncomplicated cases of rheumatism occur, but at the same time it is quite common to find a slight cardiac murmur or other evidences of rheumatism with chorea.

As we know, chorea shows a tendency to get well in a few weeks or a few months, usually whether anything is done for it or not, so that whatever the method of treatment, it could be said that the disease might have gotten well even if this treatment had not been carried out. Still more is this paper liable to criticism, for the fact that the cases received other treatment at the same time that they received the rheumatism phylacogen. Nevertheless, the

treatment with phylacogen was followed so rapidly and steadily by improvement and ultimately by a cessation of symptoms, that Block feels convinced in his own mind that the rheumatism phylacogen bears the same relation to the treatment of chorea that it does to the treatment of rheumatism.

In the first case which he reported the treatment with arsenic and the usual anti-rheumatic drugs was of little benefit, while the use of the phylacogen was quickly followed by improvement and eventual recovery.

In regard to dosage, he believes the excessive doses usually recommended are entirely too severe in effect and unnecessary in results to be given, and that the same good can be accomplished by the smaller doses, given for a longer period of time with far less distress to the patient, although he thinks the total quantity should amount to 60 cubic centimeters.

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PARALYSIS DURING ANTIRABIC TREATMENT:—*Public Health Reports* for October 24 states that while Pasteur antirabic treatment is not usually followed by any serious complications, there is an occasional exception which keeps this treatment from being pronounced as always harmless. Two interesting cases, which received the antirabic treatment at the Hygienic Laboratory, Washington, and were followed by paralysis, are reported. It seems apparent that this paralysis which is of infrequent occurrence, is not a fixed virus infection nor due to a rabies toxin, but is the result of individual susceptibility. Physicians are urged to make report of this complication occurring in their patients, so that a proper estimation of its frequency may be obtained.—*Virginia Medical Science Monthly*.

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EMETINE IN THE TREATMENT OF HEMOPTYSIS:—Im-pressed by the prompt disappearance of blood from the stools in amebic dysentery treated by hypodermic injection

of emetine, Dr. C. Flandin thought of the possibility of the drug's proving effectual in treatment of hemoptysis, and the results have more than justified this anticipation. He used the remedy by injecting into the thigh 1 c.c. (15 minims) of distilled water containing 0.04 (2-3 grain) of emetine hydrochloride. The result of the injection was surprising, the hemorrhage from the lung stopping immediately. No disagreeable sensation was experienced, no palpitations, dizziness or nausea. In some cases there was no longer a trace of blood in the sputum, but usually there were occasional blackish clots for a time.

In the more threatening cases the hemoptysis may return and consequently he repeats the injection twelve hours later and once on the following days to a total of five. With the exception of one case of galloping tuberculosis, the tendency to pulmonary hemorrhage was definitely arrested in all his eight cases as also in twelve others in the experience of other physicians. He determined the arterial pressure before and after the emetine and was unable to note any appreciable change in this or in the coagulation of the blood or the blood-count. This measure seems to be entirely harmless and has succeeded when all others have failed.—*Critic and Guide*.

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**CHOREA:** In the November number of the *Medical Review of Reviews*, William Lucas treats of the value of prolonged hot baths in the treatment of chorea in children. From a therapeutic standpoint, there are few conditions that are at times more difficult to treat than choreic conditions in children. Arsenic in Fowler's solution has been used very extensively, but everyone who has tried it, has found cases which do not respond to arsenic. It is questionable whether in cases where it has been considered to be of some value whether the rest in bed, which often accompanies it, irrespective of any medical treatment, has not been the real cause for improvement. In the same way

bromides and chloral have been advocated by many as the logical method of treating these choreic cases. The use of large doses of bromides or chloral in many cases proves of no permanent value. At times when children are under the therapeutic effect of large doses, their choreic movements disappear, but when the bromides are discontinued, the movements return as soon as the effect is over. Rest in bed seems to be of the greatest value in the treatment of these cases, unaccompanied by any medicinal treatment. He has had just as good results in a series of cases that were receiving Fowler's solution or bromides, as I have in a separate series of cases that have received no medicinal treatment at all, but simply rest in bed, isolated from other children. At times, however, this rest in bed is not sufficient or the results are very slow in appearing. During the last winter, he has tried the value of prolonged hot baths in several fairly pronounced choreic cases in the children's hospital of the Boston Dispensary. He reports the cases with the hope that others will try this form of hydrotherapeutics in choreic cases, not with any idea that it is a specific treatment, but simply that it has been found of considerable value combined with rest in bed in shortening the hospital care of this class of cases. It is a form of treatment that can be applied at home just as well as in the hospital, if the other conditions for rest also are present; without rest in bed, and removal of exciting or disturbing factors, it probably would not be of very much value but with quiet and rest in bed, it certainly has been found of considerable value in his experience.

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### *Original Communications.*

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#### THE THREE DESTROYERS.

BY W. FRANK GLENN, M.D., OF NASHVILLE, TENN.

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As we journey through this earthly existence we are subjected to three pathological conditions which do more to shorten our lives; also to fill us with suffering and sorrow, more than all else combined. Yet, all three could and should be avoided, if we were educated—properly educated and instructed in sexual hygiene when we were young. These three besetting sins which have sent so many to untimely graves, which have made so many inmates of insane asy-

lums, which have enervated so many young nervous systems, produced practically all partial or complete sexual impotence, are Masturbation, Gonorrhoea and Syphilis.

I do not feel that I am wrong when I say that if the world were rid of these three diseases and their complications and consequences, that at least eight-tenths of the suffering would be removed from the human family. It is often said and with truth, that there is scarcely one male in a thousand who has reached the age of twenty, who has not masturbated, and the majority excessively. Heretofore it has been taken for granted that boys masturbate, and no proper effort has been put forward to prevent it. They have been allowed to grow up in ignorance of the sexual instinct, of its important role in the health and welfare of both mind and body, and are allowed to plunge blindly on in ignorance to their physical undoing, to awaken in their manhood and realize the irreparable injury they have done themselves, through neglect of sexual education.

We care for our fine horses and our cattle, guarding every avenue against disease, injury or imperfect development; everything is done to bring them to physical perfection when mature; yet the boys are neglected as of no consequence at all.

When I hear, as I often do, a father say "he cannot talk to his son on this subject," I feel a great pity that he had ever been given the sacred duty of raising a son. If he has not the thought and manhood to do his most sacred duty by his son, he has no right to bring a son into the world.

I have heard eminent physicians say "that it was natural for a young man to have nocturnal emissions, with moderate frequency; and if not too frequent, there was no harm in them." I wish to firmly and positively assert that it is not natural to have lascivious dreams producing emissions; and I further believe that no boy or man ever has nocturnal emissions, until after he has perverted his sexual organism by masturbation. I have carefully investigated this subject for many years, and I have never seen a man subject to

these pollutions, who had not masturbated previously or had been guilty of some perverted sexual act.

The confirmed, excessive masturbator is easily recognized; but the moderate masturbator is not so easily detected; yet, when it is done moderately or excessively, it will just so surely affect the nervous system in more or less degree—this is inevitable; and no one commits this vice who does not eventually but surely pay the penalty. The moderate masturbator will go through life without any of his most intimate friends seeing or noticing any effects; yet he will inevitably feel its influences, although he may not even himself suspect the cause. The usual symptoms in a moderate masturbator are a lessening of firmness, a disposition to shun any serious responsibility, a want of buoyancy and vigor, a lack of what is commonly called “push” in business. This effect may last for years after the custom has been abandoned; and yet one of the most baneful results of this vice is a weakening of the power of erections to a degree of impotence, at a time when the individual should be most vigorous. How often do we see men of 30, 35 or 40 years of age, who look to be in perfect health, but who have no perfect erections. I will say here, as my firm conviction, that no man otherwise moderately well should fail to have proper erections up to the age of 60 or 70 years, had he never masturbated, or had sexual intercourse before he was fully grown.

Closing this part of our subject as to masturbation and nocturnal pollutions until a later article\*, in which we will consider the remedy, we will now consider the second feature or Gonorrhoea. Its immediate and direct results are inflammation of the urethra, the bladder neck, the prostate gland and seminal vesicals, entailing great suffering. Later on, urethral stricture, gonorrhoeal rheumatism and purulent kidney; also the many innocent female sufferers from pus tubes, ovarian abscess, acute or chronic endometritis, etc. Alas! how often have we heard men who ought to have known better, say: “When I was a boy, I did not con-



sider clap to be worse than a bad cold"; when maturer years are reached, they often—only too often find it to be one of the *most serious afflictions*, and are quite ready to damn everybody because they were not informed of its real nature, and earnestly warned of its inevitable and lasting dangers.

*Thirdly*, we wish to briefly consider Syphilis, whose dire effects, well nigh permeate the entire human family. Not only its immediate effects during its active state; but its many, very many results, not only to the individual himself, but entailing untold and indescribable suffering, too often on the innocent. Furthermore, it nearly always, if not always, lessens the vitality of the individual, thereby rendering him less able to resist other diseases, to say nothing of the paralyses, locomotor ataxia, neuralgias, many affections of the spinal cord, together with abortions, still-born children, and early death in infancy.

These diseases have heretofore been taken too much as a matter of course, of accidental or unknown causation, and the medical profession has not made the united effort it should to teach the people, and especially the younger ones, their serious nature, their menace to health, and the means and measures by which to avoid them. It is full time, that we who know, should be teaching the people the importance of the sexual function, and the necessity of conserving the sexual forces in youth in order that their minds and bodies may be developed into perfect men, instead of the pitiful specimens we too often see who call themselves men.

Heretofore, sexual matters have been regarded as "nasty," too dirty to be discussed, when they form the centre around which the physical and mental health revolves. Unsatisfied sexual impulse, and perverted sexual acts and thoughts are the underlying cause of more diseases of the nervous system especially, than are to-day dreamed of by the medical profession at large.

## CLINICAL QUANTITATIVE ANALYSIS BY COLORIMETRY.

BY RICH WEISS, PH.D., M.A., F.C.S. (UNIVERSITY OF BASEL)

Since the development of exact methods for the chemical and analytical examinations of the products of metabolism, both in the healthy and pathological states, the field of labor in physiological chemistry has vastly increased. Physiological examinations of the various excretions, of blood and other body fluids, of organs and of parts of organs are now universal, and hardly any practitioner can fail to be called upon to make such examinations. The qualitative demonstration of some pathological product of metabolism may often be the first indication of some morbid condition of the body, and lead to the establishment of a diagnosis. The quantitative estimations of such abnormal products enables us to follow the progress of the disturbance with mathematical accuracy—for example the simple estimation of Haemoglobin, as is carried out to-day in innumerable cases.

Quantitative analysis does undoubtedly, however, present difficulties to the general practitioner, who is not well versed in chemical methods. Sometimes it is quite impossible for one who is inexperienced in chemical work to carry out the estimation, so that it is entirely neglected or handed over to a laboratory.

For some considerable time I have been devoting myself to the methods of investigation in chemical physiology, and have carried out quantitative analysis of blood and urine in numerous cases. I have often realized that the methods advocated when great accuracy is required, are unnecessarily complicated and occupy too much time. In this respect the method of colorimetry has acquired a position which it will retain permanently and which will constantly be extended. Colorimetry is especially indispensable when dealing with such minute quantities as can not be estimated by the analysis of weight or mass. After a little practice colorimetric methods are quite precise, and are much less com-

plicated than the methods hitherto in vogue. The nature of the necessary apparatus is another point, which has an important bearing on the subject.

I have made numerous colorimetric estimations with an apparatus which has been invented by Professor Autenrieth, M. D., and Professor Koenigsberger, Ph. D., both of the University of Freiberg; this instrument was originally intended as an improvement, as far as accuracy is concerned, on Sahli's Haemometer, for estimating haemoglobin richness. But time showed that it possessed much more extensive usefulness. Briefly put, the main parts of the apparatus consist of wedge shaped flasks and a colored solution. The latter is always a stable, light resisting solution of the test fluid, whose intensity indicates the content of the substance. The colored solution, which is used for estimating, is fixed to the wedge in a small receptacle, by moving it up or down. This affixing can be quite close, because, owing to Helmholtz's double plate, there is no disturbing interval between the two color intensities, which are to be compared. Each wedge section corresponds to a definite content of substance in the solution under examination. This content is empirically arranged by graduating the wedge beforehand. Such an arrangement can not be improved upon, for simplicity.

My experiments in quantitative chemical-physiological analysis with the aid of this colorimeter enable me to state that the results are sufficiently accurate for clinical work, and that they can be obtained quickly and without complicated procedure. I have included in my experiments some observations in regard to the possibility of carrying out certain colorimetric examinations, which should be of considerable interest.

The colorimetric estimation of blood pigment as the hydrochlorate of Haematin, and the comparison of this solution with one of equal optical value, is well known. This latter solution, if not freshly prepared must be stable. These

conditions are satisfied by the appropriate standard wedge of the above named colorimeter—a statement which applies equally to the other wedges. It is of great advantage that one can personally graduate the wedge in accordance with one of the accepted methods. Indeed it is an inestimable advantage as guaranteeing the accuracy of the estimation, that the observer can at any time himself undertake this graduation. Once the wedge is graduated it saves this trouble for the future, and the solutions for comparison being always ready, it is only necessary to affix the one with the corresponding color and to read off, on the scale, its content of the substance under enquiry. In estimating Haemoglobin in this way there is one factor which must not be omitted from consideration, *i. e.*, the regular subsequent darkening of the solution of Haematine Hydrochlorate. If one does not take notice of this, incorrect results will be obtained. I therefore take the precaution of waiting 5 minutes from the moment of mixing, before making the estimation. Similarly I have also graduated the wedge for the examination in such a way that the graduation and the estimation may be undertaken under identical conditions, a matter which it seems to me should always be taken into consideration in all colorimetry. The mixing of the blood with 1-10 N. Hydrochloric acid can be done most conveniently and accurately in a pipette, whereon there is one mark 20 ccm. in the capillary portion, and another indicating 2 ccm. It is thus possible to add the blood, in the precise amount, directly to the hydrochloric acid, without any loss.

Much has been written concerning the colorimetric procedure for the estimation of iron in the blood, both in favor thereof and against it. When it is necessary to make systematic examinations of the iron content of a continuous series of blood specimens, I can not conceive any simpler quantitative method than the colorimetric. Jolles has long recommended the direct comparison of the intensity of an iron rhodanide coloration, with an hydrochloric solution of blood, incinerated and melted with potassium sulphate with

the addition of potassium rhodanide. The results should be still more accurate if the iron rhodanide formed is shaken up with ether, and this ethereal solution used for the colorimetric comparison. In the first place the qualitative test is thus rendered more sensitive and the quantitative examination is greatly facilitated, because the color of the ether remains permanently stable. With a little practice it will be possible to obtain very close agreement in the control estimations with varying quantities of blood—25, 50, 100 ccm. It must be remembered that Iron Rhodanide only becomes thoroughly dissolved in the ether when it is well cooled and it is therefore necessary to place the mixing cylinder, used for the test in ice for a little while.

Colorimetry has also shown its usefulness very definitely of late in the matter of urine examination. Methods for the estimation of Sugar, Uric Acid, Indican, Kreatinin, Aceton and Phenol have been worked out. Rowntree and Geraghty have apparently indicated a very useful procedure for testing the renal functions, based upon the rapidity of excretion of a certain coloring material. The amount of this coloring matter excreted in the urine within a definite time, is estimated colorimetrically. The authors inject intramuscularly into the patient to be examined a certain amount of phenol-sulphon-phthalein solution, and they state that normal conditions should excrete 40-60% of the coloring material in the first hour, and 70-90% in two hours. If there be any morbid change of disturbances in the kidneys these figures will not be reached within the time, and the degree of the disturbance is also quite evident from this test. I had opportunities of carrying out this test in a large number of healthy persons (students) and I am in the position of being able to completely confirm the statements made in regard to normal excretion. In about 100 cases the phthalein excretion averaged 48% in the first hour and 71% in the second hour. I have unfortunately had no opportunity of employing the test in cases of renal disease, but I have no doubt that this method affords better evidence

of renal disturbance even in the quantitative sense, than the previous unreliable and, to some extent, dangerous methods: viz. Methylenblue Rosanilin Phloridzin-potassium Iodide.

Autenrieth and Tesdorpf have published a method for the quantitative colorimetric estimation of sugar. The principle of the method depends upon measuring the decolorization of a solution of copper, by means of the reducing power of Glucose. For this purpose it is better to use copper sulfate solution as suggested by Bang for his titration method. This solution is to be prepared with great care by dissolving potassium carbonate, potassium bicarbonate, potassium rhodanide and the purest copper sulphate in water, under definite conditions of temperature and concentration. The potassium rhodanide prevents the precipitation of the copper oxide so that the blue color of the solution with its excess of copper only changes in its shade and in proportion to the amount of sugar present, otherwise it undergoes no alteration. Experiments with pure grape sugar dried at 100 degs. prove the value of this method, which is just as accurate as if carried out by polarimetry. Indican has for a considerable time been estimated by colorimetric methods, either as Indigo blue according to Obermiller, or as Indigo red according to Buma. The Indigo red is formed under certain conditions when a mixture containing Indican is allowed to stand with Isatin-hydrochloric acid, and can be extracted by means of Chloroform. For the estimation of Kreatinin the method of Felin by means of the colorimetric picin acid is the usual one in vogue.

For the estimation of uric acid in urine or in blood the colorimetric method is especially useful, because it brings this examination for the first time within reach of the general practitioner. The urine to be examined is treated with a solution of Uranyl-acetate-ammonia-sulphate which precipitates the reducing substances usually present in urine. The uric acid is then precipitated with ammonia, and after-

ward dissolved in a 1% caustic soda solution. A certain quantity of this solution of uric acid is treated with sulphuric acid and a certain quantity of hydro-jodic acid, from which a quantity of iodine will be liberated, directly proportionate to the quantity of uric acid contained in the solution. The liberated iodine is dissolved in chloroform, and compared in the Colorimeter with a standard solution in the usual manner.

I am now engaged in working out a method of estimating albumen on colorimetric lines, which will complete the series of clinical examinations in the foreground of interest to the medical man.

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### *Abstracts.*

#### ABSTRACT OF AN ADDRESS DELIVERED BY DR. HANS KARFUNKEL, OF BERLIN, AT THE GERMAN MEDICAL SOCIETY OF NEW YORK, N. Y.

(Dec. 1913.)

*Dr. Karfunkel, of Berlin, Germany, read a paper on about 600 cases of all forms of tuberculosis, which he treated with Living Avirulent Bacilli\* one of a heretofore unknown species. The bacilli grow on glycerine agar and glycerine bouillon.*

The organisms form spores in 2 to 3 days. In later cultures only spores are found.

The bacilli are not acid fast, and have no relation whatever to the tubercle bacillus.

Injection of the bacilli in animals produce only temperature reaction. For the injections, he uses a solution of the bacilli in normal salt solution. He injects about 0.02—3.0

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\*The Health Department of the City of New York, examined the bacilli bacteriologically, and confirmed that they are avirulent.

c.c. intramuscularly in the gluteal region. The succeeding injections consist of the bacilli together with a filtrate of the glycerine bouillon culture. In some cases he injected also tuberculin.

He has developed a definite method of the treatment of cases from the reaction, the favorable and unfavorable effects obtained by him in many thousand injections. The method consists of giving several combinations of the bacilli with its filtrate. These combinations he has arranged in the form of a table. The dosage depends on the severity of the lesion. The more extensive the lesion, the smaller the dose. The intervals between injections depends upon the effect obtained by the preceding injection and also by the reaction itself. The cases which he treated were of 2 kinds; (a) Pulmonary tuberculosis; (b) Surgical tuberculosis. The cases of pulmonary tuberculosis, he classifies in three groups, mild, moderately severe and severe cases. In the mild cases he is able to cure 100 per cent of the cases. Of the moderately severe cases he gets complete improvement in 40 per cent of the cases, and marked effect in 60 per cent of the cases. In severe cases a complete improvement in 30 per cent.

The length of treatment is usually about thirty-eight days to ten months. In the majority of the cases the results were permanent during the time they were observed. Surgical cases, such as tuberculosis sinuses, tuberculous epididymitis, tuberculous dactylitis, healed after two or three injections of the bacilli alone, very marked effects were obtained by subcutaneous injections in lupus and other forms of tuberculosis of the skin.

There are two kinds of reactions which follow the injections: Focal reaction, consisting of changes in the lesions, and general reactions, consisting of headache, temperature and malaise. In no cases were there any abscesses or infiltrations. These subjective symptoms are the first to disappear.



Hemoptysis disappears promptly after the injection. The objective symptoms soon disappear after repeated injections. In many cases, however, one injection is sufficient.

From serological investigations, complement fixation tests and blood examinations he assumes the probable mode of action to be due to the formation of a fat splitting ferment by the bacilli and by the lymphocytes, which they greatly increase. This fat splitting ferment destroys the fatty capsule of the tubercle bacilli and allows it to be destroyed by the antibodies of the blood and helps to immunize the body against the tubercle bacillus and lessen the tuberculin sensibility. The filtrate is given with the succeeding injections of the bacilli, to combine with the antibodies against the bacilli, which were formed by the first injection.

A copy of the original article can be had from the author and the remedy is now being tested by a number of prominent physicians. It will be given to the profession as soon as the author's results have been corroborated.

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## THEORY AND TREATMENT OF DIABETES.

### *Author's Abstract.*

"Laboratory work upon diabetes during recent years, and a more careful study of its metabolic disturbance, have taught us many new facts, particularly from the dieto-therapeutic viewpoint which had been thought to be the true one, but in the light of later research has been materially modified. Therefore, what to many may pass as the newest standpoint is abandoned by others in favor of a still newer one." This is an introductory paragraph of a valuable contribution on the above subject before the Medical Association of the greater city of New York, October meeting, appearing in the *N. Y. Medical Journal* for the issue of

Dec. 13th, 1913, by William Edward Fitch, M. D., of 355 West 145th Street, N. Y. City, who, referring to the Theory of Diabetes, says:

"There is no subject in medicine upon which have been contributed so much thought, time, and energy, from an experimental standpoint, as diabetes, and yet no subject as to the true pathology and etiology of which we possess proportionately less accurate information." For the sake of convenience the author refers to three types of diabetes: 1. Cases due to lesions of the fourth ventricle; 2, cases due to metabolic disturbances of the liver and alimentary canal; 3, cases due to pancreatic disturbances (atrophy of the islands of Langerhans).

While the foregoing classification, for the sake of convenience, is referred to as types of diabetes, the author does not wish it inferred that he believes the diseased process is confined to any one organ, for no organ works for itself alone. It depends on processes taking place in other organs, together with the products of its own activity, which influence the functions of others organs. These products may be *ferments* stimulating decomposition in the blood, or *hormones* regulating activity of the cells.

The author holds that metabolism is the all important factor in the maintenance of life and health. Heat and energy, he affirms, become absolutely necessary in order to convert the nitrogenous or protein elements into proteids and thence into tissue and fat. In order to get this heat and energy, the body burns carbon and thereby gets the heat, while the energy is supplied as the direct result of combustion by water contained in the starch elements.

In the process of digestion starches are converted first of all into alcohol before work on the rehabilitation of the organism can begin. We know that any food becomes an irritant when taken in excess above a legitimate demand; therefore carbohydrates containing starch (untreated) given in great quantities to a diabetic will produce an ir-

ritating effect upon the sugar producing organs; as a result the patient will suffer from glycosuria.

Why does a diabetic void sugar in his urine? asks the author. Then he answers, because of faulty carbohydrate metabolism, the patient is not able to convert the sugar into alcohol in his system. The reason he cannot is at present unknown to physicians and pathologists. This much is certain, however. If carbohydrates are withdrawn from his dietary, the patient will feed on himself until all the fat stored in his system has been consumed, and then he will die. While we know that alcohol has its abuses, yet we cannot live and have our being without alcohol in our system. We understand that all starches are first converted into alcohol before they can yield their energy to the system, and a certain amount of alcohol is necessary for the conversion of nitrogenous food into tissue building material to sustain the human economy.

The treatment of diabetes is far from ideal, affirms the author, being a malady subject to varied complications, it necessarily presents a difficult problem in treatment. We recognize that it is primarily a disturbance of nutrition in which the function of utilizing carbohydrate foods is more or less completely impaired. No disease, says the author, with which he is conversant necessitates such a careful balancing of all the details of each individual case, the metabolic powers of the patient, the functional condition of the liver, the condition of the alimentary tract, the state of his nervous system and of his environment, and the functional capacity of his pancreas, must be severally and collectively considered in forming a conclusion as to the advice that should be given him for his daily conduct in the future.

The newest researches have taught us, says the author, that the manner in which carbohydrates are allowed is of the greatest importance. The human body obtains its energy and nutrition from three types of foodstuffs, proteins, fats, and carbohydrates.

For general purposes work, warmth, and nutrition, all three serve well; the muscular tissues are, however, most specific in their requirements. They have a predilection for sugar as their foodstuffs and immediate source of energy. It is necessary, therefore, that sugar should always be available for this purpose. The liver with its sugar factories—the liver cells—fulfils this function.

The author discusses the various carbohydrate cures which have been recommended in diabetes. The oatmeal cure by Von Noorden, the rice cure by Von Düring, the potato cure by Mosse and others; but his experience is that none of them can be relied upon.

The author then refers to a carbohydrate food which has given pleasing results in the dietetic treatment of this malady. This particular food is made from whole grain wheat and barley cereals. The grain is ground on the old fashioned burr millstones, and the finished flour contains all of the starch and cereal salts that Nature grew into the grain in the field. After being ground, the whole wheat flour is subjected to a series of special processes brought about by the application of a certain degree of heat for a specified period of time, which causes certain changes in the starch atoms. This special treatment by the application of heat produces changes in the envelope of the starch molecules which facilitate digestion and assimilation. The author believes in allowing the diabetic carbohydrate, together with nitrogeous food, sufficient to build up and maintain the human economy; but starch and nitrogen *per se* mean nothing toward sustenance until the animal economy has converted these elements into tissue building material. Among the many advantages of starch treated foods is the fact that they indirectly facilitate the absorption of other foods, especially carbohydrates of every kind, on account of the apparent inducement they seem to hold out to the enzymes of the intestinal tract, to assume their full amylolytic function with promptness and thoroughness. The author has treated a great number of cases of various types of

diabetes by prescribing these starch treated foods to the exclusion of all other starch foods, and has been very much gratified to see the percentage of sugar in the urine gradually decrease and finally disappear.

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### *Obituary.*

DR. S. WEIR MITCHELL died at his residence in Philadelphia, from the effects of Grippe accentuated by his advanced age, he being in his eighty-fifth year. He was born in Philadelphia, February 15, 1829, the son of Dr. John Kearsley Mitchell, and was educated in the city's grammar schools. Later he entered the medical department of the University of Pennsylvania, but on account of illness was obliged to leave in the middle of his senior year. He later was given his degree of M. D., by the Jefferson Medical College in 1850. He was given honorary degrees by the University of Bologna, and the University of Toronto, while the degree of L. L. D. was conferred on him by Harvard, Princeton, and other institutions in this country. He held membership in societies in many parts of the world, including the French Academy of Medicine, the British Medical Society, the Royal Society of England, the American Neurological Association, the American Medical Association, and his State and local organizations. He was a noted neurologist and his medical writings are largely on the subject of Nervous Diseases, in which and along other lines he was eminent in research and advancement. He was the originator of the "Rest Treatment" in Nervous Diseases.

Dr. Mitchell was blessed with a long life and vigorous constitution, and these blessings he used for the benefit of mankind. Both for his professional work and writings and for the splendid novels he produced the world is better because of the more than four score years of his existence.

As Dr. Mitchell was unique in being one of the few men

who have achieved success in a double capacity he is also one of the very few who became eminent as a novelist after he had reached what are with most men the declining years of life.

Du Maurier and Wm. De Morgan are his only parallels in this respect that can be recalled.

Dr. Mitchell's chief stories were of the best class of historical romances, and he did much with the use of fiction to depict colonial life in the period of the revolutionary war.

His life was a great example of what application may accomplish and proved that the powers of mind and body may be preserved well into the years in which many men fall into decay.

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FRANCIS LEBAU PARKER, M. D., died at his residence, 70 Hassell Street, Charleston, S. C., December 15, ult. He was born of distinguished parentage in this grand old Southern city in 1836; received his degree of M. D. in his native city in the Medical College of South Carolina in 1858; entered the Confederate Army in 1861 as Assistant Surgeon, subsequently promoted to Surgeon, serving faithfully and most creditably until the close of the war between the States, when he returned to his native home and was recognized as one of its most able medical men, serving his people well as a physician, and his profession and State as Professor of Anatomy and Dean of the Medical College of South Carolina (his alma mater) for many years. He was elected President of the Association of Medical Officers of the Army and Navy of the Confederacy at its second annual meeting, in Charleston, and presided at the meeting in Louisville, Ky., the following year. Cuorteous, kindly and genial, he was a true Southern gentleman of the Old School, and a most,worthy representative of the medical profession.

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SURGEON-GENERAL GEORGE H. TORNEY, M. D., U. S. A., after an illness of several weeks, died at his home in Washington, D. C., December 27, of bronchial pneumonia. He

was born in Baltimore, Md., June 1, 1850, and studied medicine at the University of Virginia, from which he graduated in 1870. His first service was in the navy, 1871-1875. Immediately after his resignation from the navy he was appointed Assistant Surgeon in the U. S. Army, with the rank of First Lieutenant, and was promoted rapidly, until he finally received the rank of Surgeon-General of the Army on June 14, 1909. He saw especially active service in the Philippines and Cuba. He was a member of the American Medical Association and various other associations and clubs. At the request of his widow, West Point, N. Y., where General Tronev had been stationed for four years, was selected as the place for the interment, and the burial was held with full military honors.

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DR. D. H. KEY, of Monroe, La., a graduate of the New Orleans School of Medicine in 1860, died at St. Francis' Sanatorium, Monroe, on December 7, after a long illness.

He enlisted as a private in the Fifth Louisiana Cavalry in 1861, was subsequently commissioned Assistant Surgeon, and served faithfully until he was paroled at Natchitoches, La., in 1865. He was a member of, and an ex-Vice-President of the Association of Medical Affairs of the Army and Navy of the Confederacy. A careful, earnest and honorable practitioner, actively engaged until he had reached his three-score and ten. "After life's fitful fever" may he rest well, "on the other side of the river, under the shade of the trees."

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## Reviews and Book Notices

CLINICAL DIAGNOSIS AND URANALYSIS:—By James R. Arneill, A. B., M. D., Professor of Medicine and Clinical Medicine in the University of Colorado, and Physician to the Denver County Hospital and the St. Joseph and St. Luke's Hospitals of Denver. New

(2d) edition, revised and enlarged. 12mo., 270 pages, with 83 engravings and a colored plate. Cloth, \$1.00 net. *The Medical Epitome Series*. Lea & Febiger, publishers, Philadelphia and New York. 1914.

This work is worth many times its price to the student, the practitioner and the specialist alike. It helps the student to crystallize his impressions, throughout the term as well as at examination time; it enables the practitioner to refresh his memory and keep in touch with all the salient advances, and the specialist to clarify his perspective and readjust his sense of values. The revision embodies all the recent advances. Particularly practical and timely are the sections on the examination of the stomach contents, and on serum reactions, including discussions of the Widal, Wassermann, Noguchi, butyric-acid and cobra venom tests. In each case due attention is paid to the normal as well as to the pathological constituents and the necessary apparatus is carefully described. The illustrations are chosen with excellent judgment. The frequent bibliographical references are incentives to wider reading, and the questions at the end of each chapter serve to fix the important points in the reader's mind.

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GENITO-URINARY DISEASES AND SYPHILIS:—By Edgar G. Ballenger, M. D., Adjunct Clinical Professor of Genito-Urinary Diseases, Atlanta Medical College; Editor *Journal-Record of Medicine*; Urologist to Westley Memorial Hospital; Genito-Urinary Surgeon to Davis-Fisher Sanatorium; Urologist to Hospital for Nervous Diseases, etc., Atlanta, Ga., assisted by Omar F. Elder, M. D. The Wassermann Reaction by Edgar Paulin, M. D. Second Edition Revised. 527 pages with 109 illustrations and 5 colored plates. Price, \$5.00 net. E. W. Allen & Co., Atlanta, Ga.

In this excellent work the authors' aim has been to present fundamental principles, and to enter at the same time into sufficient detail when considering matters of prime importance. They have been not only content to state generally accepted views, but have also set down the result of somewhat close study of recent literature whenever it has



seemed to accord with their own experience and that of recognized authorities .

Those sections which deal with rare affections and unusual operations have been considered briefly, in order to place especial emphasis and fuller consideration on more common diseases. Much space has been given to the treatment of gonorrhea, prostatic disorders, the diagnosis of renal affections, and the diagnosis and treatment of syphilis, especial detail being given to the indications, contraindications and technic of the administration of neosalvarsan and salvarsan; a full description also is presented of the technic and interpretation of the Wassermann and luetic tests.

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## *Editorial.*

### AMERICAN COLLEGE OF SURGEONS.

Dr. Franklin H. Martin, General Secretary of the American College of Surgeons, has issued a very interesting pamphlet of information from which we take the following extracts:

Officers.—President, J. M. T. Finney, Maryland; First Vice-President, W. W. Chipman, Quebec; Second Vice-President, Rudolph Matas, Louisiana; Treasurer, Albert J. Ochsner, Illinois; General Secretary, Franklin H. Martin, Illinois.

Board of Regents.—J. M. T. Finney, Maryland; Albert J. Ochsner, Illinois; Franklin H. Martin, Illinois; George E. Brewer, New York; George E. Armstrong, Quebec; John B. Murphy, Illinois; Edward Martin, Pennsylvania; Frederic J. Cotton, Massachusetts; Herbert A. Bruce, Ontario; Charles F. Stokes, Washington, D. C.; William D. Haggard, Tennessee; George W. Crile, Ohio; Robert E. McKechnie, British Columbia; Charles H. Mayo, Minnesota; Harry M. Sherman, California.

Selection of Fellows.—It was determined by the organization to admit surgeons to fellowship under two groupings: First, the charter members, consisting of surgeons of distinction and ability who have been in the practice of medicine not less than eight years, and who, in the opinion of the Board of Regents, should be entitled to fellowship without the formality of an examination; second, those

who should be required to submit to an examination or other test of qualification required by the Board of Regents. It was decided to limit the time of admission of the first group or charter members to November 1, 1914, and to postpone the admission of fellows by examination until the Board of Regents had formulated detailed plans of a satisfactory nature for admission by this method, not earlier than November 1, 1913.

**Application for Membership.**—The Board of Regents at its earlier meetings announced that it would be the spirit of the association to open the fellowship to all competitors in surgery without favor. The Board of Regents is anxious to have every surgeon on the continent, who can fulfill the membership requirements, become a fellow of the organization. The General Secretary is, therefore, instructed to send application blanks to any legally qualified practitioner of medicine on the American continent who may signify his desire to become a member.

**Method of Selecting Fellows.**—The By-Laws specifically state that the fellows of the college "shall be graduates in medicine who are legalized to practice medicine in their respective States or provinces and who meet the qualification requirements that shall from time to time be established by the Board of Regents."

The application blanks are uniform and each applicant for membership is required to file an application blank filled out in detail and signed.

**Committees on Credentials.**—The Board of Regents has authorized Committees on Credentials, consisting of the Central Committee, which reports directly to the Board of Regents, and State and Provincial Committees, which report to the Central Committee on Credentials.

The Central Committee on Credentials holds its meeting in the office of the college, where the members can have access to all papers and correspondence filed in connection with each candidate.

The State and Provincial Committees, each consisting of from five to seven members, are located in nearly every State in the United States and in four divisions of Canada.

**Duties of Committees on Credentials.**—The name of each applicant for fellowship, together with the names of his references are sent by the Central Committee on Credentials to the State or Provincial Committee, which has jurisdiction over the territory in which the candidate resides, and this local committee, after consideration, makes its recommendations to the Central Committee.

When an applicant's papers are complete, including a report from each of the references given and from the State Committee on Cre-

dentials, the Central Committee on Credentials takes up the application for final consideration and recommendation.

When the candidate has successfully passed the final scrutiny of the Central Committee on Credentials, he is recommended to the Board of Regents for election to fellowship. If, on the other hand, the candidate's papers are found defective or his qualifications are considered below the standard of fellowship required by the college, the Committee on Credentials notifies the candidate by the following form letter:

"Dear Doctor:—Your application to the American College of Surgeons has been considered by our committee on several occasions, but we regret to say that the data submitted are defective to the extent indicated on the accompanying card.

"So far, our committee has had submitted to it over 20,000 pages of material for consideration in connection with the various applications for membership, all of which had to be carefully read, and you can readily see that in order to perform our duties thoroughly, we have been compelled to adhere to rules which might seem unreasonably strict, were we not compelled to do this work in an entirely impersonal manner.

"We have consequently decided to send this form letter to all applicants whose applications it has not been possible to send to the Board of Regents with our recommendation for election of the applicant. This action is frequently due to the fact that the surgeons given for reference have neglected to send in reports upon which judgment could properly be based."

Accompanying the above letter are two cards: Card "A" indicating the defect in the credentials or documents of the applicant, and card "B" indicating the remedy proposed. The status of the applicant's papers are shown by the underscored lines.

Applications for Fellowship.—Over two thousand applications for fellowship in the college had been filed up to November 1, 1913, fully one-half of which were voluntary applications. Of this number the Committee on Credentials recommended to the Board of Regents 1,058 for fellowship at the first convention. A large number of the applications still on file will undoubtedly be found to represent successful candidates, when they have been considered by the committee.

The total number of fellowships was 1,058; 966 in the United States, and 87 in the Dominion of Canada, with the following 5 Honorary Fellows:—Sir Rickman J. Godlee, of London, England; William Williams Keen, of Philadelphia; William S. Halsted, of Baltimore; J. Collins Warren, of Boston; Robert F. Weir, of New York.

The names of those surgeons from Tennessee upon whom the fellowships were conferred at the first convocation in Chicago on November 13, 1913, are as follows:

|                               |            |
|-------------------------------|------------|
| Richard Alexander Barr.....   | Nashville. |
| William T. Black .....        | Memphis.   |
| W. A. Bryan.....              | Nashville  |
| Lucius E. Burch .....         | Nashville. |
| Robert Caldwell .....         | Nashville. |
| Marvin M. Cullom.....         | Nashville. |
| Joseph Augustus Crisler ..... | Memphis.   |
| E. C. Ellett .....            | Memphis.   |
| Duncan Eve .....              | Nashville. |
| Rufus E. Fort .....           | Nashville. |
| William D. Haggard .....      | Nashville. |
| Battle Malone .....           | Memphis.   |
| John M. Maury .....           | Memphis.   |
| W. M. McCabe .....            | Nashville. |
| M. C. McGannon .....          | Nashville. |
| S. R. Miller .....            | Knoxville. |
| J. Lancelot Minor .....       | Memphis.   |
| Frank David Smythe .....      | Memphis.   |
| Hilliard Wood .....           | Nashville. |

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#### RESULTS OF ANTI-TYPHOID VACCINATION IN THE ARMY AND NAVY.

The army got through the year 1913 with only two cases of typhoid fever in the enlisted strength of more than 80,000 officers and men. One was that of a man who had not been immunized with the typhoid vaccine, and was believed to have contracted the fever before he enlisted; the other case was among troops in China and, though the man was immunized in 1911, the history of the case is in doubt.

The navy had among its 50,000 jackies only seven authentic cases of typhoid in the year ending last June. Four of those were treated at a remote tropical station where the vaccine had deteriorated.

Such is the wonderful record of the prophylactic treatment which has wiped out one scourge among the nation's defenders, and which many medical officers believe has had something to do with the decreasing rate of tuberculosis.

Many thousands of sailors on merchant ships have been treated with the serum at the government's marine hospitals.

Before the resort to immunization typhoid cases in the army

averaged about three per thousand enlisted strength, or about 250 cases per annum. In 1910, before the beginning of the treatment, the rate was 2.32 per thousand; in 1911 it dropped to a total of 80 cases, in 1912 to 26; this year the rate is practically nothing.

Typhoid cases in the navy, which in 1911 numbered 3.61 per thousand, dropped to fifty-seven cases, or .90 per thousand in the following year. During the current year up to October 1 the rate per thousand was only .30. The surgeon of the Atlantic fleet now reports that the prophylactic treatment has practically eradicated typhoid from the fleet.

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FELLOWS' SYRUP OF HYPOPHOSPHITES contains the chemically pure hypophosphites of iron, quinine, strychnine, calcium, lime, manganese, and potassium, agreeably blended in the form of a bland, stable syrup with a slightly alkaline reaction.

Its perfect uniformity of manufacture, its absolute freedom from irritating, or other undesirable qualities, and the fact that *it cannot be successfully imitated*, should lead physicians to *specify the name "FELLOWS" on their prescriptions.*

Probably no preparation known to the medical profession has met with such marked success. Its value as a pharmaceutical preparation was speedily recognized, and its use has been recommended by the leading specialists of the entire medical world for upwards of forty-six years, whilst the support it has received from the medical profession of all nations is a *unique and striking testimony* to its four decades of usefulness.

Year by year since its discovery, imitations have been introduced, extolled as equal to the original, proved comparatively valueless, and have passed away. At the present time there exists a host of such preparations which are sold under the title of "Syr. Hypophos. Comp." Each of these imitative preparations differs from the others, and, so far, not one of them has been found to possess the distinctive characteristics of the original, viz:—

- (a) *UNIFORMITY OF COMPOSITION.*
- (b) *STABILITY IN VACUO.*
- (c) *THE PROPERTY OF RETAINING STRYCHNINE IN SOLUTION FOR AN INDEFINITE PERIOD, AND*
- (d) *PRE-EMINENCE IN ARRESTING DISEASE.*

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VIBURNUM:—"This old and well-known indigenous plant affords a frequently indicated medicament. It exerts a positive action of a

soothing and quieting character upon the nervous system, and promptly relieves many cases of nervous excitement. In nervous states, when the patient complains of moderate pain and restlessness as a prominent cause of suffering, it should constitute a part of the treatment. Viburnum is a useful remedy in many wrongs of the reproductive organs, and is especially valuable as a means of lessening nervous excitement in abnormal conditions of the uterus. In dysmenorrhea, whether the flow is scant or profuse, it exerts a relieving influence, and is especially needed in cases in which the discharge is membranous. Amenorrhea and menorrhagia also come within the range of the curative action of this energetic remedy. Viburnum constitutes an excellent medicament in almost every form of ovarian irritation. Acting as a uterine tonic, it restores normal innervation, improves the circulation, and corrects faulty nutrition of the uterus and ovaries. In pregnancy its tonic influence has often proved of much value, and has long been employed as a remedy in habitual abortion, with satisfactory results. In order to obtain the most beneficial influence of the drug in these cases, small doses of the remedy should be given from soon after conception until the end of the fifth month of pregnancy. In after-pains its action is modifying in character, and in chlorosis, chorea, and hysteria, when associated with uterine irritation, it is an efficient remedial agent."

The above statement from *The Eclectic Medical Review* of Dec. 15, is most heartily endorsed. For nearly half a century, by sheer force of therapeutic worth as a dependable remedy in Gynecological and Obstetrical work, *Hayden's Viburnum Compound* has maintained professional esteem and confidence.

In this day of therapeutic nihilism and substitution of standard remedies this is worth while considering.

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BRONCHIAL AND PULMONARY TROUBLES will be more or less rife during the next two or three months, therefore we desire to call your attention to the two following preparations prepared by *The Tilden Co.*, of New Lebanon, N. Y., and St. Louis, Mo.

*Firlyptol with Kreosote* is both anti-tuberculous and anti-strumous, containing all the desirable features of Cod Liver Oil, being also very readily assimilated.

*Firwein* has stood the test for half a century as the prescription in bronchial affections in the hands of numerous reputable and progressive practitioners of medicine. Samples of both will be supplied on request.

**DECREASE IN MEDICAL SCHOOLS, STUDENTS AND GRADUATES:—**

There are fourteen fewer medical schools in the United States than there were a year ago; 1,200 fewer persons studied medicine in 1913 than in 1912, and there was a decrease of 500 in the number of medical graduates, according to figures compiled at the United States Bureau of Education. Of the 101 medical schools now listed at the bureau, fifty-three are requiring one or more years of college work as a prerequisite to entering upon the study of medicine. State examining boards in North Dakota, Iowa, Minnesota, Colorado, Indiana, South Dakota and Kentucky have introduced regulations, in most cases to be made effective within a year or two, providing that every applicant for a license to practice medicine shall have studied two years in college, after a four-years' high school course, before even beginning medical training. A similar requirement covering one year of college work will soon be enforced by the State boards of Connecticut, Kansas, Utah, Vermont, Pennsylvania and California. An interesting feature of the statistics is the part played by women. Although the total number of medical students has decreased, the number of women studying medicine has increased. In 1912 there were 18,451 medical students, of whom 712 were women; in 1913, there were 17,238 students, of whom 835 were women. Only seventy women graduated this year, however, as compared with 142 in 1912.

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**CAMPHO-PHENIQUE (*liquid*):**—For major and minor surgical operations. A powerful antiseptic and germicide. Its antiseptic properties tend to insure success in all delicate or important operations and its healing influence promotes speedy granulation.

**CAMPHO-PHENIQUE (*powder*):** A dry dressing of exceptional value in superficial wounds, ulcerated sores, burns, scalds, cuts, wounds and abrasions of the flesh.

**CAMPHO-PHENIQUE (*ointment*):** A dressing indicated in skin diseases, eczema, excoriated flesh, psoriasis, itching diseases, scales, rash, dandruff and scalp eruptions of children.

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**CHRONIC GLANDULAR ENLARGEMENT:—**For many years Iodia (Battle) has been a favorite agent in chronic glandular enlargement, owing to the distinct alterative influence it is capable of exerting. In such conditions there is a clear indication for iodine, and this is furnished the tissues through the administration of Iodia (Battle). The therapeutic value of this drug is augmented by the active principles of such well known vegetable alteratives as *stillingia*, *helonias*, *saxifraga*, and *menispermum*.

**THE PHYLACOGEN TREATMENT OF INFECTIONS:**—An interesting experience with Phylacogens has been narrated by Dr. E. H. Troy, of Oklahoma. It appeared in a recent number of the *International Journal of Surgery*.

"I have treated twenty-four cases of rheumatism," writes Dr. Troy. "Their recoveries were as rapid as remarkable. One man of thirty-two had had rheumatism for three years; he was confined to bed for three months, and eight months elapsed before he was able to work. He was brought to the hospital on a bed and had to be lifted on a sheet. I gave him one dose of Phylacogen daily, and in six days he walked to the station, carrying his suit-case. Another patient, a man twenty-four years old, had inflammatory rheumatism when ten years of age. He was confined to bed for six months. He has suffered all his life, and had visited the various watering-places in America, receiving very little benefit. The last four years he had been almost incapacitated. I gave him ten doses of Phylacogen, and his recovery was rapid."

Dr. Troy refers to a number of other cases of infection, including chronic otitis media, sycosis, acne, carbuncle and erysipelas, in the treatment of which he has been singularly successful, and adds:

"The administration of Phylacogen is peculiarly adapted for the treatment of infectious diseases. . . . The only requirement is to make a diagnosis. If you are treating infectious diseases without making a diagnosis, however, do not be disappointed if you do not get results with the Phylacogens."

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**CREOSOTONIC (Scott):**—The ideal systemic antiseptic. Invaluable in Tuberculosis, Bronchitis, Pneumonia, Asthma, Catarrh and as a tonic after all exhausting diseases. Samples and literature free on request, by the Dawson Pharmacal Company. Dawson Springs, Kentucky.

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**"JUST PLAIN NERVOUSNESS":**—Toward the relief of that condition which may be aptly characterized as "just plain nervousness," PASADYNE (Daniel) will be found of distinct value. PASADYNE, of course, is merely a high grade Concentrated Tincture of *Passiflora Incarnata*, and possesses a definite calming influence. It is in nervous states marked by sleeplessness that PASADYNE (Daniel) in moderate dosage, shows its marked usefulness. A sample bottle (without cost) may be had by addressing the laboratory of John B. Daniel, Atlanta, Georgia.



**PROGRESS IN THE TREATMENT OF TUBERCULOSIS:**—Eryphon, about 200 years after Hippocrates, originated percussion as an aid to physical examination and was the first to advocate the administration of large quantities of milk in Phthisis. Celsus, 350 years later, advised the change of climate, and up to the discovery of the Tubercle Bacillus by Koch no other distinct method of treatment was tried. The hope then expected from the vaccine treatment has again and again been rudely shattered, and not until about three years ago, when Bayle of Cannes, France, began his work on the administration of raw spleen in cases of Tuberculosis, has there been a distinct advance in this treatment for over twenty centuries.

The crude methods used by Bayle, Jolly and many others were finally overcome in the laboratories of Reed & Carnrick. There the nucleo-plasm and proto-plasm of the pulp of the spleen were combined in equal quantities with their already well-known reconstructive Protonuclein, resulting in the formation of a preparation known as Protonuclein Beta, which has only lately been given to the medical profession. Already the results obtained have far exceeded the most sanguine expectations. For this reason, Protonuclein Beta in 5-grain cubes should be given in conjunction with routine treatment in every case of Tuberculosis, whether mild or severe, from the simplest form of glandular swelling to the severer cases affecting lungs and bones.

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LIPPINCOTT'S *Magazine*, Midwinter-February number, as usual has a complete novelette, "*The Message of the Sword*," by Clinton Danglerfield, which has the rapid movement and satisfying climax so popular in this periodical. A prominent feature is by Lady Ritchie, the distinguished daughter of Wm. M. Thackeray, who will give a delightful discourse on "*Modern Sybils*," in which she has something to say about both English and American authors of note. The short stories are by Kenneth Groesbeck, Harold Playter, Florence Selden Peple, Mary Day Harris, T. C. McConnell, Edwin L. Sabin, Owen Oliver and Samuel Scoville, Jr.

The Departments—Walnuts and Wine, Ways of the Hour, Finance, etc., will be found fully up to the former mark of excellence and attractiveness.

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**IODINIZED EMULSION (Scott):**—The ideal intestinal antiseptic. Indicated in typhoid and other slow fevers, dysentery, chronic diarrhoea and gastro-intestinal troubles. Samples and literature free on request, by the Dawson Pharmacal Company, Dawson Springs, Kentucky.

**Danger Due to Substitution:**—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of “just as good” than the scientifically standardized Eucalyptol. The more recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No “Just as Good” allowed.

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## Selections

**LUNDVALL'S REMEDY FOR DEMENTIA PRÆCOX:**—The prognosis in dementia præcox has been and is almost uniformly unfavorable. In the State of Massachusetts only one out of each 1,500 admitted to the State hospitals with this diagnosis during seven years recovered. The systematic writers give rather better prognosis, allowing that anywhere from one to eight in each hundred recover with some defect. The cause of this insanity of adolescents is absolutely unknown. The pathological findings are trifling and for the most part neglected. The duration of the disease is long, averaging more than ten years. These unhappy, often starving, creatures of our neglect make up more than 60 per cent of the asylum population.

Thirty years ago Savage noticed that many mute and inactive cases of dementia præcox became awake to their condition, took an interest in their surroundings, and voluntarily talked with their attendants during the progress of a febrile disease such as typhoid fever or erysipelas, and that some of these patients went on to complete psychic and physical recovery. Boody estimated that one-fourth of the insane patients in two epidemics of typhoid at the

Asylum for the Insane at Independence, Iowa, made temporary mental improvement and at least two remarkable cases recovered so completely that they returned to their professions, one to law and one to engineering. Wagner and Lehmann (1887) gave their similar experiences and reversed the existing literature, and since that time scarcely a year has passed without some valuable contribution on the same subject, recounting the experience of the author in confirmation of the thesis, that *the febrile diseases often start a temporary or even a permanent betterment on the psychic and physical condition of dementia praecox patients.*

One of the earliest studies of the blood of the insane was the work of W. L. Lindsay (1854), but little was accomplished until the strong presentation of L. Bruce in his popular "Studies in Clinical Psychiatry" (1906) in directing attention to the leucocytosis and polycythemia that marks the remissions and exacerbations of dementia praecox. He noticed that hyperleucocytosis was present in improvement and leucopenia in deterioration. Dide, Chenais, Donath, Lepine, and Popoff in France, Galdi, Pighini, Sandri, and Paoli in Italy, Ellermann and Erlandssen, Lindhard and Lundvall in Sweden, continued these researches and developed as clear a blood picture characteristic of dementia praecox as the long recognized blood picture in typhoid fever is of that disease. This finding is now to be known as "the blood crisis" of Lundvall (see *Hygiea*, 1907).

Only during the last ten years has the pathognomonic pupillary symptom complex of dementia praecox attained recognition. This phenomenon is often referred to as "Westphal's pupillary stare," but Weiter, Huber, Sioli, and Oswald Brumke have extended Westphal's observation and shown that not alone in advanced cases of catatonia, but also in early cases of dementia praecox there is in more than six-tenths of the cases a characteristic pupillary complex in which the pupils are widely dilated and the normal

pupillary unrest and the normal reaction to touch are absent while all the time light reflex remains present and normal. The pupils assume a drop-shaped or slit-like form under myosis. One pupil is sometimes alone affected. The cyanosis and dilatation of blood-vessels present a strong argument for the toxic nature of dementia præcox.

Early in 1912 the epoch-making little book of Emil Abderhalden appeared with his new method of organic synthesis. It is best known to physicians by its application in the diagnosis of pregnancy. This remarkable method has, however, been applied in the diagnosis of dementia præcox and epilepsy. In this short time Fauser and Wegener and several other investigators report a most uniform differential reaction between dementia præcox and manic depressive insanity.

With these growing indications, almost demonstrations of the physical and toxic etiology of dementia præcox, it is no wonder that efforts have been repeatedly made to bring about artificially the hyperleucocytosis which attends the improvement of these patients in their attacks of typhoid and other ferbile diseases. The nucleates of sodium have been used by Donath, Fischer, Ittan, and Lundvall. On nine patients Ittan\* used subcutaneous injections at intervals of ten days or less of 50 c.c. of a 1 per cent solution of the nucleate of sodium; chills, fever, and leucocytosis followed, and in two cases betterment. One patient, mute for twelve years, volunteered conversation and played chess. Lundvall\*\* after giving a full account of his studies of the blood and a careful outline of his technique proposes a more concentrated solution of the nucleates with sodium

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\*Ittan, W.: Heilversuche mit Neucelen-injidion bei Schrzophrenie. *Zeitschr. f. d. g. Neur. u. Psych.* Vol. 7, 1911, p. 384.

\*\*Lundvall, Halvar: Über Blutseranderungen bei Dementia præcox nebst einen Versuche einer Art spec. Therapie. *Tidsskrift for Nordisk Retsmedicin og Psykiatri*, Vol. 10, 1912, pp. 227-306, 30 plates and figures.

cinnamate and arsenic. The plates consist of charts showing the blood reaction to the injections which were given after protracted study of the blood of the same patient before treatment began. The differential white count is made on a study of thousands. He recommends the injection subcutaneously of 2 to 15 c.c. of the following sterilized solution at intervals, corresponding to the duration of the reaction, of four to twenty days: Sodium nucleinate, 10.000; arsenious acid, 0.005; sodium cinnamate, 1.000; distilled water, 40.000.

While there is sometimes pain at the point of this injection which is much relieved by hot applications, no abscesses were produced in several hundred cases injected by Lundvall. A few hours after the injection there is a chill more or less pronounced, and the temperature rises two or more degrees. The leucocytin increases correspondingly, but sometimes the leucocytes increase without high temperature or the hyperleucocytosis remains after the temperature subsides. None of the patients were made worse by the treatment.

In his thesis Lundvall reports eighteen cases in considerable detail. Of these eight cases of dementia præcox recovered, some of them rapidly, some slowly, but all quite completely; five or six made remarkable improvement. Of the remaining five cases only three, and these of doubtful diagnosis, showed no improvement.

Lundvall's patients were not selected from the very early or favorable cases, but were those in whom he had been able to follow out along series of observations on the changing blood picture. He lays much stress upon the technique of the examinations, and presents twenty-nine charts illustrating the findings in these patients covering long periods of observation. It is too much to believe that we have in Lundvall's remedy a method of curing dementia præcox, but his modest report certainly commands us to investigate in our crowded institutions a method which has

proved successful in 40 per cent of a most unpromising series of confirmed patients.—*Bayard Holmes, M. D., in N. Y. Med. Record.*

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**HIGH BLOOD PRESSURE:**—George Morris Piersol, in the September number of *The Therapeutic Gazette*, considers the management of high blood-pressure. At the outset it must be clearly borne in mind that persistent vascular hypertension is not a disease *per se*, but is merely a symptom of some underlying morbid process. When, through the introduction of clinical sphygmomanometers, high pressure first came to be generally recognized, there was a decided disposition to focus the attention too much on this symptom, and regardless of its significance, to attempt to combat it by vigorous measures. Happily, this tendency has gradually yielded to a more rational conception of the process, and we are learning to appreciate the importance of the teachings of Loeb, Janeway, and others, that high blood-pressure is primarily compensatory. In the two most important conditions associated with hypertension, chronic nephritis and arteriosclerosis, it has been shown that in the former, the high pressure is essential in order to maintain adequate elimination through damaged kidneys, and in arteriosclerosis, the elevated pressure helps increase the circulation in organs whose nutrition is impaired, because of diminished blood supply. Sometimes nature overdoes in her effort at compensation, and the elevation may reach a point that makes efforts directed toward its reduction justifiable. He emphasizes prophylaxis, with proper attention to the patient's general hygiene and mode of life. He asserts that the management of the condition, when dependent on some well-defined, irremedial anatomical change in the organism, is both difficult and unsatisfactory. Rest, diet, and elimination are efficient agents, and, as to drugs, he believes that the promiscuous use of the nitrates, whenever high blood pressure

is encountered, regardless of its significance, must be looked upon as an ill-advised therapeutic habit into which too many of us have fallen. It seems well established that not only do the nitrites fail to do any lasting good, but in a number of cases, if we accept the compensatory conception of hypertension, they are capable of positive harm. It is evident that these various vasodilators find their chief use when it is necessary to combat some sudden condition of spasm, such as angina pectoris, or nocturnal dyspnea, but that they are inefficient as routine means of treatment. In fifty cases with average systolic pressure of 200 mm., nitroglycerin was used at some time in twenty-seven. Of these it seemed to have a beneficial effect on the blood pressure in but three. In six its value could not be determined, while in the remaining nineteen cases it had apparently no noteworthy effect. Paradoxical as it may seem, distinct benefit seems to have followed the use of digitalis in some cases, and it may be here employed in small doses with safety. It does good chiefly in those cases in which cardiac weakness is developing, and often is wonderfully efficient in relieving the distressing dyspnea and vertigo. Cardiac depressants are sometimes effective in relieving the headaches, throbbing and vertigo. He uses aconitin, or the tincture of aconite, and veratum viride sometimes proves useful.

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THE CAPTAIN OF THE MEN OF DEATH:—The pneumonia season is upon us—that dread disease which, in spite of all our modern science, still continues to lead in mortality all the ills that flesh is heir to, and gathers every year a larger death roll than all the minor causes of death put together. The solution of the pneumonia problem would therefore seem to take precedence over all other questions in medicine; yet, strange to relate, interest in it appears to be overshadowed, for the time being at least, by the brilliant work of pathologists in other fields. While the discovery of the pneumococcus has helped to clear up some of our

difficulties, it has as yet given us little information of practical value in the treatment of the disease.

The question naturally arises, Are our methods of treating pneumonia all that they should be? Evidently they are not, since under the prevailing expectant plan the death rate is not so very much lower than it used to be under the active antiphlogistic measures of a generation ago. Is it not possible that even now treatment is directed too much to symptomatic measures, which give relief, but yet actually endanger life?

What are the principal indications of treatment in pneumonia? In the order of their relative importance, they may be stated as follows: (1) The toxemia, which may be intense, and is capable of attacking any tissue in the body, but attacks especially the vaso-motor and respiratory centers, acting first as irritant and then as a paralyzant; (2) The heart, which is profoundly depressed, both by the action of the toxins on the nerve centers and by their direct action on the heart muscle; (3) The local hyperemia, which may be intense enough to endanger life. Under the older methods of treatment the whole attention was given to this third, and probably least important, factor. The only consideration was the mechanical one, the weakness of the heart being considered to depend upon the overwork incident to the congested lung. We now believe this conception to be an erroneous one. The cardiac asthenia, which is the cause of death, is central rather than peripheral, and is dependent primarily on the toxemia.

The first aim of treatment, then, should be to check the production and neutralize the effect of the toxins. This, unfortunately, we are not able to do as effectually as we could wish, although the pneumococci vaccines furnish us a valuable aid in this direction. Elimination of the toxins through the kidneys, bowels and skin is an absolutely essential part of the treatment, with the warning provision that the kidneys themselves are exceedingly sensitive to



these poisons, and their function should be kept under close observation. Stimulation of these emunctory functions fulfills another important indication; by withdrawing the blood to the skin and the alimentary tract, the pulmonary congestion is relieved just as effectually, and without the danger attending the use of vasomotor depressants.

It is absolutely imperative to maintain the integrity of the heart. This is best accomplished by a reduction of the toxemia, but in most cases it is necessary to supplement measures directed to this end by the administration of a vaso-motor stimulant, strychnine being generally regarded as the most effective. All cardiac and vaso-motor depressants are absolutely contra-indicated. Few authors now recommend the use of antipyretics at any stage of the disease, but there is reason to believe that many physicians still use them, because of the ease with which they reduce temperature. These drugs are dangerous and should never be used in pneumonia. They depress the nerve centers and weaken the heart. They undoubtedly give relief; but this is a mask for real danger, like the false calm produced by morphine in appendicitis. Nor does venesection seem to be justified, in spite of the popularity of its revival. A therapeutic measure which decreases the oxygen-carrying capacity of the blood and thus necessarily favors the accumulation of bacterial waste and effete matter in the body is illogical. It undoubtedly gives relief, but at the expense of ultimate danger to life. The end desired is more safely to be obtained by a hot bath.

That these principles of treatment are practicable, as well as plausible, is evidenced by recent reports from an Eastern hospital. The method consisted in elimination by the bowels with calomel and salines; by the skin with frequently repeated hot mustard baths; local depletion and counter-irritation to the chest; and stimulation with strychnine and normal salt solution. One hundred and

sixty-eight cases were treated by this method, mostly in hospital practice, with a death rate of little more than 10 per cent. Of the seventeen who died, four had been sick a week before treatment was instituted, two had chronic nephritis, one a dilated heart, one typhoid fever, and two delirium tremens. The results in this series of cases are such as to furnish food for careful thought.—*Medical Brief.*

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A SEASONABLE REMINDER:—Urotropin in full doses (adults 15 grains, children 2-6 grains, three times per day), given in the early stages of a "cold," assisted by a mild saline laxative, is the modern method of "breaking it up," far preferable to and safer than quinine, phenacetin, acetanilid, etc.

Based upon its proven excretion by the mucous membranes of the entire respiratory tract, systemic Urotropin medication is also recommended as a routine measure in acute rhinitis, tonsillitis, catarrh, bronchitis, influenza, and grippe.

This, however, is only one new field of usefulness of this most diffusible of drugs, which to many practitioners is still known only as a urinary antiseptic.

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ATROPINE IN ULCER OF THE STOMACH:—Mathieu and Girault report good results from the use of the following formula of Pouchet in the treatment of the pain resulting from gastric ulcer:

R Neutral sulphate of atropine, 0.01 gram.

Glycerine (28 per cent Baume), 3 c. c.

Distilled water, 1.5 c. c.

Alcohol (95 per cent.), ad 10 c. c.

Fifteen drops of this solution contain one milligram of atropine. The dose is ten drops gradually increased to twenty drops three times a day. The treatment is kept up for about one week.—*Bulletin General de Therapeutique.*

PITUITARY GLAND IN LABOR:—Milne, in the *Indian Medical Gazette*, asserts his belief that there are absolutely no ill effects from it whatsoever. The injections are given when the uterine pains are weak, and within five minutes of its exhibition a vigorous contraction sets in. This lasts for a minute or two, and is followed by others in quick succession. Later, the intervals become longer and the pains less strong, but so far he has never found it necessary to give more than one injection, and believes a repetition is not followed by further contraction. He has used it now in about fifteen cases, and has been absolutely surprised at its efficacy and sureness. The cases he has chiefly employed it in were those in which the pains either in the first or second stages have become infrequent and weak, and he is certain it has saved him on many occasions from the necessity of applying the forceps.

There is absolutely no fear of the uterus going into tonic contractions as in the case of ergot—and none of his cases showed any subsequent excessive relaxation of the uterus—i. e., no postpartum hemorrhage. It is unnecessary for him, he asserts, to cite all his cases, but the following extracts from his case-book will show how he uses it, and the success achieved:

Mrs. C., aged thirty-two, multipara. Labor began at 6 P. M. on the 17th of February. He saw the patient at 9:30 P. M.; os dilated to the size of a shilling. He saw her again at 1 A. M.; os dilated the size of a crown, but head still high; pains were fairly frequent. At 2:45 A. M. pains had stopped for the time being and patient was getting tired. He gave 1 c.c. pituitary extract; in five minutes pain had recommenced, and at 2:55 the baby was born.

Mrs. D., aged thirty-nine, multipara. The waters began to come away at 2 P. M. on the 23d of March. He saw the patient at 4 P. M.; the os was very slightly dilated and water was dribbling away; there were no pains, but there was much hydramnios; water continued to come away the

whole of that night and the next day. He gave patient twenty grains of chloral and twelve grains of bromide at 9 P. M. She slept until 2 A. M.; pains then began, but were weak and ineffective. He was sent for, and arrived about 5 P. M.; the os was three-fourths dilated and pains very weak. At 5:10 he gave 1 c.c. of pituitary extract; at 5:13 a very vigorous pain began and the head almost at once showed at the vulva; the child was born at 5:20, and, as in the former case, without a tear or scratch to the vulva or perineum.

It is difficult to estimate the good which a remedy like this is capable of doing. Instead of a patient waiting for hours in the hope of pains coming on, we can induce vigorous and most effective pains at will. The amount of suffering which it will save is incalculable. In Milne's opinion, nothing so useful has been discovered for obstetric practice, with the exception of chloroform and antiseptics, since the invention of forceps by Chamberlin in the seventeenth century.

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**HEART DISEASE:**—From inquiries made by the author, cardiac cases with edema, cases with anginal pains, and cases where cardiac disease is secondary to renal disease do not seem to be improved by the ingestion of sugar. In a case of general paresis in which the pulse was failing, the author did not find it to have any effect. In another case, however, he believes that the patient's life was saved by it. A woman, aged 77 years, who had pulse irregularity for some years, developed a bad heart attack, with rapid, irregular, feeble pulse, cyanosis, and attacks of paroxysmal breathing. There was no edema. Inhalation of amyl nitrite gave temporary relief, but the condition then continued for some days, the patient steadily getting worse in spite of digitalis, strychnine, dry cupping, leeching, and frequent inhalations of oxygen. One day she seemed to be

dying; in the evening it appeared doubtful if she would live through the night. The author ordered some lumps of ordinary white sugar to be given in milk, and added some syrup to the patient's medicine, instructing the attendants to give her 4 ounces (120 Gm.) of sugar during the night. In the morning the patient was found very weak, but less cyanosed and with a stronger slower pulse. Digitalis had been omitted, as well as digitalin, as these had not had any effect. Four ounces of sugar were ordered during the ensuing twelve hours, and after that it was continued in smaller quantities for some weeks. The patient made slow but steady improvement. She gained strength, and at the time of writing was able to go out into the garden for a few minutes and to walk up and down stairs.—*Denyer (in the London Lancet)*.

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THE CAUSES OF ANEMIA IN MALARIA:—Among the most interesting chapters of recent work on malaria is that concerned with the origin of the blood changes typical of this disease. Besides the destruction of red corpuscles through direct development of the malarial plasmodia in them, there have been suggested several accessory causes of the anemia in this affection, prominent among which is that of a toxine prejudicial to the cells, circulating in the blood. Recently Wade H. Brown (*Journal of Experimental Medicine*, July, 1913) has presented an account of researches which lead him to regard the pigment hematin, set free from hemoglobin by the malarial parasite, as an active factor in the production of many, if not all, of the important blood changes observed in the various forms of the disease. Injection of only ten to twenty milligrammes of hematin (to the kilogramme of animal) into rabbits on several successive days was found to produce a well-marked anemia, consisting both of reduction in the number of red cells and of the presence of immature cells. The mechanism of this de-

struction of red cells could not be definitely made out; some degree of hemolysis was often noted, but microscopic study of the tissues showed that red cells were also killed without disintegration, numbers of them being found included with phagocytes.

In addition to its effects on the red cells, hematin was also found by Brown to induce changes in the leucocytes, platelets and coagulation time. The first were usually increased in number, as in the pernicious forms of malaria, and there was always a high percentage of large mononuclear cells—a characteristic feature of malarial blood. The effect of a single injection resembled the cycle of changes occurring in the leucocytes at the time of the malarial paroxysm. The platelets were found to be markedly reduced in number by hematin, and ultimately a prolongation of the coagulation time and the bleeding time took place. The resulting tendency to hemorrhage has its counterpart in the well-recognized class of hemorrhagic cases of pernicious malaria. Thus, so numerous are the points of resemblance between the effects of hematin and those of malaria on the blood that a partial causal relationship of the former to the latter appears, to say the least, probable.—*New York Medical Journal*.

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HYDRATE OF CHORAL:—T. D. Crothers, in the *Medical Council* for August, calls attention to the danger from hydrate of chloral. Chloral has been used more in delirious states from alcohol and other causes than in any other way. For a long time it has been combined with bromides, the supposition being that it increases the anesthetic action and is safer than when given separately. Experience shows that when combined with bromides, even in small doses, there are certain cumulative effects, which develop in palsy, particularly from the central areas of the brain. Thus aphasia and loss of memory, defects of the senses, and, sometimes, serious derangements of nutrition follow. When bromide is

given alone these are not noticed so prominently, and when chloral is given alone other symptoms follow which are not noticed in the combination. In his experience with the neurotics of the alcoholic and drug type, chloral is a very uncertain drug, and should never be given for any length of time, and the effects should be carefully watched. There are many physicians who use chloral with the confidence that it is perfectly safe. This is unwarranted, particularly in alcoholics and neurotics. The so-called heart diseases or sudden unexplainable collapses and deaths suggest chloral and perhaps a peculiar susceptibility to it, not only in its action on the nerve centers but also its prolonged depression of vitality beyond the point of restoration. The treatment of chloral addiction is the same as that of toxemias. It calls for profound elimination, baths and rest. The extreme exhaustion and lowered heart's action, in persons whose diagnosis is not clear, suggest chloral; and drugs that are followed by rapid stupor point to the same thing. Finally it is evident that hydrate of chloral has a very limited value in medicine, and this is growing less and less. It belongs to an uncertain class of drugs, the effects of which cannot be predicted and are not uniform or certain, and are likely any moment to change to intense toxic conditions.

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**A BISMUTH PASTE SUBSTITUTE:**—Blanchard, in the *Medical Record*, discourages the use of bismuth paste in the healing of sinuses on account of the many cases of resulting poisoning reported. He offers the following as a reliable substitute:

White wax, 1 part; vaseline, 8 parts; mix while boiling.

Iodine may be added in badly infected cases. Iodine scales can be reduced to a powder by the addition of 20 per cent. potassium iodide. One, two, or three grains may be put in a small cup. The usual glass syringe should be filled with the hot paste. Half the contents of the syringe must now

be injected into the cup and the nozzle of the syringe used to mix the iodine powder into the hot paste. When this mixture is drawn into the syringe the fresh iodine is rather unevenly distributed in the hot paste and is ready for use. Immediately after injecting the sinus a thick pad of gauze saturated with alcohol should be bound over the opening. The evaporation of the alcohol cools and hardens the paste and prevents its escape. In some cases it is well as a preliminary step to get a skiagram showing all the sinus ramifications and pus pockets. For this purpose Blanchard is injecting sinuses with the following mixture: Ferri subcarbonate, 1 part; white vaselin, 2 parts; mix and boil.

The iron makes as good a skiagram for diagnostic purposes as the bismuth, without its dangers.—*West Virginia Med. Jour.*

(We are inclined to think that poisoning from bismuth paste is much less liable if bismuth subgallate is used instead of bismuth subnitrate. The suggestion of Dr. Blanchard is none the less of value. —*Ed. Ohio State Medical Journal*).

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**THE INSANITARY WAITING ROOM:**—In this age of advanced sanitation, in which the gospel of health is being continually preached, it is curious to note how frequently its tenets are disregarded. This is especially the case in rural districts, where even such mighty corporations as railroad companies are constant sinners. Attention is drawn to this fact in Public Health Reports, October 10, 1913, in which it is pointed out how seldom the waiting rooms used by passengers are kept in a wholesome sanitary condition. Such places are generally the loafing haunts of the unemployed, who aid in vitiating the air and not uncommonly spread the germs of infection by promiscuous expectoration. Further, the toilet arrangements are usually deplorable and lacking in ordinary decency as well as sanitary precautions. The bad condition of toilets attached to waiting rooms is



perhaps in the majority of instances not due to the negligence of the transportation companies, but is owing rather to the want of public conveniences which compels many to use the waiting room toilets. The scarcity of public conveniences in America installed and operated by municipalities or public bodies is a blot on the sanitary fair fame of the cities as well of the rural districts of the country. In all parts of Great Britain and in many parts of Europe municipal lavatories are maintained in cities and towns, in which at a very small cost a person can have the use of a scrupulously clean toilet and is also afforded facilities for washing. The plea for sanitary waiting rooms in America will find an echo in the hearts of all those who travel in any part of this continent.—*N. Y. Med. Record.*

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WHAT IS A MINIMUM DOSE OF CALOMEL?—We notice that some manufacturers put up calomel in as small as 1-100 grain tablets. The individual who conceived the idea of making tablets containing this infinitesimal amount of calomel evidently is lacking in clinical knowledge of the use of this important drug. Even infants tolerate relatively large doses of the mild chloride of mercury, owing to their copious and mobile secretions. Giving calomel in less than one-tenth or one-fourth grain doses to infants or adults is firing into empty space.—*Med. Summary.* Yes, and with a blank cartridge. *Ed. S. P.*

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IMPORTANT HINTS FOR THE BRETHREN:—If you have a fatiguingly deaf patient to talk to, place the ear-pieces of your binatural stethoscope in the patient's ears, and talk into the chest piece, and you have an excellent ear-trumpet. If you leave your spectacles at home, being old and apresbyopic, make a hole with a pin in the corner of your visiting card, and you can read your clinical thermometer or anything else.—*Med. Herald.*

**TOO MANY FOR THE BOSS:**—One of the bosses at Baldwin's Locomotive Works had to lay off an argumentative Irishman named Pat, so he saved discussion by putting the discharge in writing. The next day Pat was missing, but a week later the boss was passing through the shop and he saw him again at his lathe. Going up to the Irishman, he demanded fiercely:

"Didn't you get my letter?"

"Yis, sur, Oi did," said Pat.

"Did you read it?"

"Sure, sur, Oi read it inside and Oi read it outside," said Pat, "and on the inside yez said I was fired, and on the outside yez said, 'Return to Baldwin's Locomotive Works in five days.'"—*L. R. B., in February Lippincott's.*

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**REPAIR OF THE PERINEUM:**—Dr. G. Torrance (*Atlanta Jour.-Rec. of Med.*, Oct., 1913) has found that the use of silkworm gut in repair of the perineum and leaving the sutures in for two or three months has given better results than any other method, as shown by his experience in forty cases. The case which first directed his attention to the value of this procedure was as follows: "About a year ago I was asked to repair a perineum that was badly lacerated following a forceps delivery. Silkworm gut sutures were used and tied snugly, giving good coaptation; three or four sutures were used on either side and were knotted together in two bundles. At the end of two weeks the attending physician removed the sutures on one side, but evidently overlooked those on the opposite side. About two or three months later the patient came to me to have these removed. The result on this side was better; there was no irritation around the sutures and they were removed without pain." In a recent case the sutures were removed five months after operation with almost a perfect result.

FORETHOUGHT:—A small boy had been sent to the country for a stay with some relatives. A few weeks later he appeared at home without having given warning of his return. His father asked him, "What brings you back so soon?" "I just thought I would come," replied the boy. "Oh, you must have some reason for coming back this way, my boy; what is it?" "Well," was the reply, "It was this way. The first day, Uncle Henry killed a hog and put him on ice, and we had plenty of meat while he lasted; then Uncle killed a sheep and put him on ice and we had mutton for several days. Night before last, the hired man died, and they put him on ice, and I just thought it was about time for me to come home."—*Denver Med. Times.*

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OPERATION FOR FLATFOOT:—Carr (*American Journal of Surgery*, July, 1913) sawed through the os calcis between the ankle-joint and the tendo Achillis, slipping the sawn bone downward three-quarters of an inch and nailing it there, thus giving a good arch and a good heel to support the main weight of the body, in one case with an excellent result. The firm projecting heel takes the pressure off the plantar nerves and vessels.

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TREATMENT OF TENIA BY THYMOL:—Artault (*Bull. de therap.*) in all cases of tenia, gives crystallized thymol, 25 cg. in cachets daily, fasting. Generally the tenia is expelled on the third or fourth day, but it is advisable to continue the treatment for a week to insure the complete expulsion of the parasite. The process is simple, the tolerance is perfect, and the ill effects are nil. The author has treated twenty-three cases with perfect results, and recommends the treatment as the method of choice. The only precaution to be observed is that the patient shall abstain from alcohol while taking the treatment.—*British Medical Journal.*

**CESAREAN SECTION:**—Dr. F. Fenton (*Canad. Med. Assoc. Jour.*, Oct., 1913) reports on thirty-six operations, of which sixteen were done because of obstruction to delivery owing to contraction in the bony pelvis; six for antepartum hemorrhage with undilated os; and one each for eclampsia at term, large baby, and stenosis of soft tissues; one case is unclassified owing to loss of history. Five cases were second operations on the same patient and two patients have subsequently delivered themselves unaided. All of the children were delivered alive and all but three left the hospital in good condition. The three who died succumbed during the first two or three days from prematurity. One mother died, but it might fairly be claimed that her death was not due to operation. All of the cases might be classed as primary operations in that the operations were either done before the membranes had ruptured or before any attempts had been made *per vaginam* at delivery, or more than one or two vaginal examinations made, and those under the strictest precautions.

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**CROTALIN IN EPILEPSY:**—In the *N. Y. Med. Record*, Jan. 17, 1914, Dr. Thos. J. Mays makes the following statement: 1. As a rule, crotalin has the power of relieving the paroxysms of epilepsy if given in appropriate doses. 2. The average maximum dose lies between gr. 1-100 and gr. 1-50, although the former must be preceded by minimum doses in probably every case. 3. Crotalin has more power to relieve epilepsy than the bromide compounds.

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**BUTTERMILK FOR ERYSIPELAS:**—Arnold (*Practitioner*) recommends buttermilk highly as an application for erysipelas. Whatever the stage of the disease he says the spread of the infection is immediately checked, the pain disappears, and the whole morbid process rapidly aborts when it is used locally. It is easy to apply, cheap, can in itself do no harm and may therefore be given a trial.

**DIRECT TRANSFUSION OF BLOOD IN THE TREATMENT OF HYPERERMESIS GRAVIDARUM:**—C. Viannay reports a case of incoercible vomiting of pregnancy in which he practised direct transfusion of blood from a normal pregnant woman. The vomiting stopped immediately. This method of treatment is based upon the method advocated by Le Lorier in 1911 and Freux and Dantin in 1912, by which the blood serum of a pregnant woman is injected into the vomiting patient. The latter method would commend itself by its greater simplicity.—*Journal de Medecine de Paris*.

**DIAGNOSIS OF MASTURBATION IN GIRLS:**—Kaufman (*N. Y. Med. Journal*), says, "First take a specimen of the urine and examine it microscopically to determine the absence of yeast. Have the mother prepare some yeast and make the child play with it at night time just before being put to bed. It is better to have the yeast fairly moist, as it then cakes on the hands better. Then without allowing the child to wash its hands, put her to bed, using a shortened night gown. Next morning have a thoroughly cleansed vessel for the child to urinate into and bring the specimen to the physician's office. This is centrifuged, and on putting the sediment under the microscope the yeast can be readily recognized. The presence of the yeast fungus is proof positive of the practice of masturbation."

**IODINE IN CORNEAL ULCER:**—Ganilla treats all cases of ulcers and ulcerations of the cornea with iodine, irrespective of the cause. The method he employs is the following: The eyes having been previously anesthetized with a few drops of 4 per cent solution of cocaine, the end of an ordinary wooden applicator is sharpened to a pin's point and a little cottonwool firmly wound round it. The point is dipped in tincture of iodine and the surface of the ulcer gently touched with it. The conjunctival sac is next thoroughly irrigated with distilled water.—*British Medical Journal*.

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A BRIEF CONSIDERATION OF CHRONIC NEPHRITIS.  
BY DEERING J. ROBERTS, M.D., OF NASHVILLE, TENN.

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Nearly a century has passed since Richard Bright immortalized himself to the extent of making his name a "household word," and emblazoning it most extensively on the multitudinous pages of medical literature; and although there has been a mass of divergent views and theories advanced year by year, yet we are still far from satisfactory practical results as to the numerous conditions presented by renal pathology; and notwithstanding the immense amount

of, and earnest efforts at research, both macroscopical and microscopical, as well as clinical, that have been expended, there is yet no little obscurity and indefiniteness as to practical clinical features in connection with pathological findings.

Acute Nephritis is a definite and distinct entity, produced by toxins developed within the body, endogenous; or introduced from without, exogenous; easy of diagnosis by any careful observer; and in a majority of cases amenable to treatment, with possibly a rather high mortality in very young subjects, which, however, should not exceed 30%. The measures of treatment that have been accepted by nearly all authorities being rest of the kidneys by stimulating the action of the other excretory tissues of the skin and bowels, reducing nitrogenous waste by carefully regulated diet with confinement to the bed or warm room, and warding off dangerous complications; keeping well in mind the three important principles of medical practice, *cito, tuto et jucunde*, placing emphasis on the one first cited, lest the acute disease pass over to chronicity, one of the most serious complications.

Passing over this phase of Nephritis with this brief mention, in this somewhat cursory consideration of Chronic Renal Disease, we will not undertake the more or less voluminous classification that has at times been essayed, and recognizing the futility of efforts at classification either anatomically—gross or microscopical, or clinically, as many cases will present both clinically and anatomically features common to more than one of them; we will therefore limit the discussion to: (1) *Amyloid Degeneration*; (2) *Chronic Parenchymatous Nephritis*; and (3) *Chronic Interstitial Nephritis*; in all of which we may have at some stage of the disease (a) Albuminuria; (b) Renal Casts; (c) Increased or Diminished Urinary Excretion; (d) Dropsical Effusion; and (e) Uremia.

1. *Amyloid Degeneration* is not an inflammatory lesion of the kidney, although it has for years been described as

one of the forms of Bright's Disease, yet it is quite distinct, and is simply a local manifestation of a general disease, and may be an event in either chronic form, of parenchymatous or interstitial nephritis, most commonly the former. Less frequent than the other two diseases, unaccompanied by either form of nephritis, Amyloid Kidney is quite rare, and is usually associated with amyloid degeneration of other tissues and organs. In its etiology it is *limited* to chronic suppuration, tuberculosis, syphilis, and possibly chronic malaria. Inferentially we would consider it to be due to an auto-intoxication, an endogenous toxin, seeking its elimination by way of the renal, hepatic, lymphatic, or intestinal structures, or lodging in the substance of the ductless glands—the spleen and adrenals.

The pallor of skin, even accompanied by albuminuria, increased or diminished urine, renal casts, dropsical effusion, and even uremia that may be present in amyloid kidney may occur independently of it; however, in connection with syphilis, tuberculosis, prolonged suppuration, or chronic malaria, together with enlarged spleen, liver, etc., they are more than suggestive, especially if there is an oliguria with a large amount of albumin; and even in these constitutional conditions if there is a large amount of clear, pale urine without albumin it is suspicious. While the above mentioned conditions of the urine belong to some cases of amyloid kidney, as well as gastro-intestinal irritation, diarrhoea, nausea and vomiting, they are also to be found in both forms of chronic nephritis. However, cardiac hypertrophy is a prominent feature of chronic intestinal Nephritis and may be seen in chronic parenchymatous, it does not appear in amyloid disease independently; and globulin, according to Senator, may be found in the urine of amyloid degeneration. The following quotation from Tyson is pertinent:—"The symptoms and course of the disease, particularly in its latter stages, are so like those of *chronic parenchymatous nephritis* that it is often impossible to distinguish the two. Further, there is every reason to believe that chronic ne-



phritis is sometimes caused by the same dyscrasic conditions as produce lardaceous disease. In such cases, therefore, a diagnosis is impossible. Finally the two conditions may exist jointly."

He further says, that interstitial nephritis is the only other form of renal disease that may be confounded with amyloid degeneration, with which it may be associated; and in which he says the amount of urine is larger, mentioning also absence of dropsy, small albuminuria, scanty sediment, and granular and hyaline casts. But are they not also, in some instances, present in amyloid disease?

Amyloid degeneration may be arrested, and if not removed, rendered so harmless as to approach in reality a cure, by surgical measures; the amputation of a limb, resection of bone, removal of tuberculous glands, emptying a chronic abscess, healing of large ulcers, etc.; and also by the relief or removal of tuberculous, syphilitic or malarial infection. It is of great interest, in this connection, to know that the earlier it is arrested the more favorable the prognosis; and that the greater its progress the earlier a fatal result of the nephritis or some one of the complications will ensue. Furthermore, after attaining a high degree, and involving the liver and spleen, amyloid degeneration is inevitably fatal, even though the primary lesion from which it results is cured. These points, if I can impress them sufficiently on a single member of my profession, amply justify this article. We have here a form of renal pathology, difficult we must all admit of correct differential diagnosis—if not impossible; of less frequent occurrence than either of the renal diseases which it may accompany, and with which it may be confounded; with etiological factors common to all three, makes it imperative on each and every one of us to ever keep close watch and ward, and whenever we find any of the symptoms of either of the three, preceded by any of the etiological factors that may produce either form of chronic nephritis, *but is limited to amyloid disease*, we must use our utmost exertions to at once secure the removal

of the same; even though it be the sacrifice of a limb or a resort to some other capital operation. Furthermore, I will again cite those important principles of *cito, tuto et jucunde*. Aye, there is no time for delay, and we must not wait for an absolutely perfect diagnosis; yes and aye, we can well say, "T'were well done, if t'were quickly done."

Passing on to the two forms of Chronic Nephritis, (2):—*Chronic Parenchymatous*, also designated C. Diffuse, C. Tubal, and C. Catarrhal Nephritis, known anatomically as the large white kidney, which later may become the small white kidney; and (3):—*Chronic Interstitial Nephritis*, with the synonyms of Contracted, Chronically Contracted, Cirrhotic, Granular, Red Granular, Gouty Kidney and Sclerosis, the kidney being small, red, hard and more or less granular, they will be considered jointly.

The former may succeed the Acute form of Parenchymatous Nephritis, and may be followed by the latter; and yet either may occur primarily and independently, this being by far most frequent. In the former, the capsule, thinner than in health strips off easily, occasionally bringing a little of the parenchyma with it; in the latter the capsule closely adherent, thickened, strips off with difficulty, in nearly all instances bringing away masses of the secreting substance. The large white kidney may be two or three times the normal size, with proportionate increase of weight; later it may become reduced in size to less than the normal, both together weighing not more than four ounces. The red or cirrhotic kidney in some instances has been observed of normal size, but the rule is a reduction in volume and weight, to possibly one-half the normal. The pathological changes occur in both kidneys, though frequently it may be more advanced in one than the other, and different portions of the same kidney may show great differences in the stage of the affection, some portions of even quite small kidneys retaining an approximately normal appearance. Further details as to microscopical findings will not be considered, being well established by standard text-book authority.

In the etiology of Chronic Parenchymatous Nephritis are placed the acute form of Nephritis, the infectious diseases, pregnancy, exposure to cold and dampness, tuberculosis, malaria, syphilis, alcohol, sex, and age; while the causative factors in Chronic Interstitial Nephritis are found in alcohol, excessive eating of meat, mental worry and anxiety, gout, syphilis, lead poisoning, renal calculus, cystitis, pyelitis, heredity, sex, age, cardiac hypertrophy and arteriosclerosis.

Chronic Parenchymatous Nephritis may follow the acute form, and may be succeeded by Chronic Interstitial Nephritis.

Both forms occur most frequently in males, the former most common in youth and childhood, most cases under forty, although it has developed as late as from 45 to 55; the latter most often seen after the fourth decade, but cases have been observed in young manhood, youth and infancy.

Syphilis is a factor in both.

Alcohol is also causative of both, yet (fermented alcohol), we see more cases in beer drinkers in the former; while (distilled alcohol), whisky toppers are more prone to the latter.

Pregnancy, the infectious diseases—scarlatina, diphtheria, etc., exposure to cold and dampness, tuberculosis, malaria and sepsis may be causative of the one; and heredity, gout and lead poisoning the other.

Increased vascular tension appearing in both forms of Parenchymatous Nephritis, continuing in the chronic variety to stimulate the heart to more forcible contraction, sooner or later may result in ventricular hypertrophy; and while cardiac hypertrophy and arteriosclerosis are so often seen in connection with Interstitial Nephritis, I believe that in some instances these conditions are causative as well as resultant.

In the semiology of Chronic Parenchymatous Nephritis we may have a variable period of ill health, coming on insidiously, often digestive disturbance, an anemic, waxy or

tallowy complexion, puffiness of face and swelling of feet, general anasarca, effusion into the serous sacs—almost always in serious cases. The dropsical symptoms may be the first to attract attention; in some few cases they may be wanting, or limited to some locality, as the scrotum; but as a rule, they are manifest to some extent, sooner or later. In fact, the serous infiltration is sometimes of greatest inconvenience to the patient, the pleural and peritoneal cavities filling up, the thighs and legs greatly distended, so heavy that the patient cannot lift them, often excoriated and moist with exuding serum, sometimes with spontaneous rupture of the skin, the serum saturating the bed-clothes or even dripping on the floor, its escape bringing some relief to the patient. Edema of the glottis is a dangerous complication, usually occurring in connection with general dropsy, but sometimes, particularly in cases of syphilitic origin, coming on suddenly and without extensive effusion elsewhere. The anemia soon becomes a marked feature; and in advanced stages the debility is striking. Shortness of breath on any exertion, dyspnoea being frequent and sometimes extreme. The urine, acid in reaction, as a rule, may be somewhat variable in quantity, but diminished to 40 or even 10 ounces per diem, often turbid, reddish-yellow in color, specific gravity 1.030 to 1.040 with scanty urine—falling to 1.010 or 1.005, when the discharge becomes more abundant, frequently depositing a bulky, cloudy sediment—made up of a variety of granular casts, numerous, large and *wide*, some oil casts and casts of entire or fragmentary epithelial cells. Casts increase in number with the development of the disease and diminish as it improves. Compound granular cells and other fatty cells are numerous, as are leucocytes, and red corpuscles may be present. The variable specific gravity is due to the diminished amount of solids excreted, especially the urea, and while we may have symptoms of uremia varying in degree, it is less frequent than in the acute or interstitial form of Nephritis, becoming more frequent after the stage of contraction is reached.

The amount of albumen is from  $\frac{1}{2}$  to 2 per cent, or from  $\frac{1}{2}$  to  $\frac{3}{4}$  by volume—the lighter the urine, the higher the amount of albumen. The stage of contraction is indicated by the development of ventricular hypertrophy and accentuation of the aortic second sound, increased amount of urine, with a rise in its specific gravity, diminution of albumin, and a reduction or absence of the dropsical condition. The duration of the disease is variable, some cases proving fatal in a few months or less, others within one or two years, while with contraction, and in mild cases, life may be prolonged more or less indefinitely; and some cases—though few in number, recover completely. Uremia with coma or convulsions, edema of the glottis or lungs, bronchitis, pneumonia, inflammation of the serous membranes of abdomen, thorax or brain may show up at any day, and demand prompt attention.

Delafield states that "simple neuro-retinitis or nephritic retinitis may be developed at any time in this disease. Both eyes are regularly involved. The impairment of vision may be very slight, or considerable, or the patient may become entirely blind." Retinal change, however, is not so frequent as in the other form of Chronic Nephritis.

While dropsy is an important symptom, even when not present, if there be decided loss of flesh, marked anemia, debility, persistent gastro-intestinal irritation, or other impairment of function of obscure origin, careful and repeated examination of the urine should be made; and a history of previous syphilis, malaria, scarlet fever, or repeated pregnancies constitute an additional reason which I desire to emphasize.

The symptoms of Chronic Interstitial Nephritis are often so vague, indefinite and obscure—or even wanting that no attention is attracted until the disease is fully developed; the large majority of cases occurring in males after the age of forty; while in the minority most cases appear about puberty, yet infancy and childhood have not been exempt. My association with the active business men of this city

during the last thirty years, lawyers, doctors and preachers, merchants, mechanics, bankers and brokers, impressed me very much with a statement of Dr. H. A. Hare, when I first saw it some half-a-dozen years ago in his excellent work on the *Practice of Medicine*. It is as follows:—

“This is the type of renal disease which is found in the iron-master or stock broker who boasts that he has never had a sick day in his life, and who begins to find himself, at forty or fifty, lacking in initiative, and who suffers from vertigo and dizziness, which he thinks are due to a club dinner or a strong cigar. This is the disease of the hard-working, ‘high nervous tension’ individual who has lived hurriedly, and perhaps quieted himself between periods of great exertion by a drink or two of whiskey, repeated it may be many times. Often it develops in those who have not used alcohol, but given a man who takes little exercise, some whiskey, and who is managing one or more large business interests, and he is the individual who is paving the way for or has already developed contracted kidney.”

This is the disease in which to the surprise of the family physician, a diagnosis is made by the specialist, who has been referred to in a matter of defective vision. Attacks of vertigo, persistent dull, heavy and throbbing headache—occipital or lateral, and possibly an apoplectic seizure may be the first indication that serious trouble is on hand. There is no doubt that the disease may have existed for years, without the patient’s attention having been attracted to a single serious objective symptom, as has been demonstrated on the bodies of those who have been brought to autopsy by traumatism or other causes.

Contracted kidney should be looked for in all persons who have reached the fourth decade of life, presenting even a few only of the following symptoms:—polyuria (excluding diabetes), frequent headache, inflammatory disorders, repeated epistaxis, vertigo, dimness of vision, impaired strength, dyspnoeic attacks, gastro-intestinal disturbance, noise in the ears, itching of the skin, cramps in the legs,

muscular twitchings, periods of mental dullness, ventricular hypertrophy, increased arterial tension, and rigid tortuous temporal and radial arteries. Any of these may occur independently of renal trouble, but several of them occurring successively, especially with the age, or any other causative factor previously mentioned, demand close and careful scrutiny.

Dropsy is rarely present except toward the fatal termination of the disease, and is never a very marked symptom. Occasionally we may have slight fullness or swelling of the feet and ankles toward night, at an earlier stage—the shoe will feel rather tight or uncomfortable. Loss of weight is another feature that rarely appears until late. Neuralgic pains throughout the body, and insomnia may appear at any time after the disease is fully developed; also uremic coma or convulsions, the one preceded by great drowsiness and the other by muscular twitchings. The skin sooner or later becomes dry, harsh and shrivelled, eczematous eruptions may appear, and the simple pruritus at times is intolerable. The pulse becomes hard, incompressible and tense, the blood pressure high. Cardiac hypertrophy may precede, and I believe in some instances is causative of renal sclerosis; however, it sooner or later makes its appearance, together with arteriosclerosis; and the intimate relations of these conditions has been well established. So long as the ventricular hypertrophy does not go on to dilatation, or produce a hemorrhagic infarct of cerebral or other vital tissue—I consider it to some extent conservative; but the Scylla on, one hand, and Charybdis on the other, are to be dreaded, and warded off so far as may be possible. Hypertrophy of the left ventricle without valvular lesion is so constant as to be alone suggestive of the renal condition. No case has existed any length of time without this condition supervening, and as very few cases are detected until they have existed for some time, very few are found without an accentuated aortic systole, and an apex beat lower

and more to the left than normal—emphysema of lungs sometimes obscuring the cardiac condition.

Diarrhoea may show up, but must not be too suddenly checked, for it may be conservative, in some instances uremic. We are here again "on thin ice." Sudden edema of the larynx may occur, and is always of grave import. Serous effusion into pleura or pericardium should warn us of a possible and more than probable fatal termination. Dyspnoea, orthopnoea, may appear independent of edema of glottis or larynx, and sudden attacks of difficult breathing, especially late at night, are not infrequent—often an uremic symptom, but sometimes cardiac; and the patient will set up in bed, gasping for breath as in true asthma. Cheyne-Stokes breathing may crop out, commonly toward the close; but it has been seen with the patient up and about, even attending to business. Bronchitis and pneumonia—lobar or lobular, most often the latter, may appear at any time.

Time and space preclude a more extended consideration of the retinal symptoms, occurring in fully one-third of the cases; but the points briefly suggested should suffice in these cursory views, considering the very interesting and well established facts to be found in the statements of standard authorities, both internists and specialists.

The polyuria, frequently necessitating getting out of bed several times during the night, is one of the early phenomena, and continues unto the end, unless diminished by an inflammatory or other complication, especially a failing heart. The amount is anywhere from 60 or 70 to 120 ounces or more; clear, pale-yellow in color, naturally of low specific gravity, seldom above 1.010 or 1.012, and it may be as low as 1.022 or 1.005. Acid in reaction. Albumin is only found in small amount, a mere trace, or entirely wanting, especially in the early morning urine. Little or no sediment, with diminution of urea. It requires a careful microscopical examination to find the few, usually *narrow*, hyaline or granular casts, with perhaps some leucocytes, and rarely a few red cells. Quite late, or upon the cul-



mination of an uremic explosion, or an inflammatory complication, the urine may be diminished, the albumin increased, and numerous casts can be seen in an apparent urinary sediment. Hematuria is very rarely, if ever seen.

Chronic Interstitial Nephritis is incurable, yet the prospect of prolonged life is more favorable than in the parenchymatous form. The interstitial change is inevitably progressive, but usually slowly so, and our endeavor is to aid in this. Cases last five, ten, twenty or even thirty years; however, the development of retinitis usually indicates an early fatal result—possibly in not more than a year or two, but there are occasional exceptions to this. The interstitial degeneration and sclerosis are sometimes limited to comparatively small areas, and the general health may remain fairly good for a number of years, and an apparent recovery may ensue.

*Treatment:*

In Chronic Parenchymatous Nephritis, the organic change in the tissues being irremediable, our efforts are to retard the progressive degeneration that will follow, and to meet the troublesome and dangerous symptomatic indications. In parenchymatous nephritis, by rest in bed in some cases and confinement to room in others for a while at least, we endeavor to lessen the amount of work on the part of the kidneys, this being supplemented by careful and rigid attention to diet, and increasing the eliminative activity of the skin and bowels. By regulating the diet and prohibiting active exertion—both physical and mental, the amount of waste matter to be thrown off by the kidneys can be kept at the minimum, and the demand for excretory action on the part of the renal cells correspondingly reduced. A warm room with a sufficiency of bed and body clothing, preferably of wool being of no little importance—chilling the body lessening the amount of skin elimination may occasion a sudden break-down, by overtaxing the weakened kidneys.

Milk should enter largely into the dietary, cream, sweet-milk or buttermilk, and it may be well in some cases to

keep the patient for a time on an exclusively milk diet. Eggs, with a small amount of the white meat of chicken or turkey, fish, and bacon, broiled or boiled, with fruits and vegetables should give sufficient variety to maintain appetite and nutrition when added to different kinds of well cooked bread, rice, oatmeal, cracked wheat and other cereals, cutting out in so far as possible all lean meats. All forms of alcohol to be rigidly excluded, and coffee and tea allowed in limited amounts, the latter being less objectionable than the former. Plenty of water, plain, or alkaline or effervescent, should be insisted on. The effervescent lithia tablets I have found quite useful in securing a sufficiency of water each day, and lemonade, hot or cold may be allowed. By the ingestion of an abundance of water, the urea is diluted and the products of inflammation removed from the capsule and tubules. Small quantities of food at frequent intervals is far better than taking the chances of overtaxing the digestion at any one time, as it is most important to secure steadily a reasonable amount of assimilation.

The anemia will demand some form of iron, the old Basham's mixture being my preference, and the oliguria may be benefited by acetate of potash, digitalis and diuretin. With weakened heart action, strychnia may be added to the digitalis, or other remedies.

The bowels should be kept open, preferably by the use of salines, as they not only aid in taking the load off the kidneys but are less likely to produce a troublesome diarrhea. I have often found small doses of calomel of material benefit, giving four doses of  $\frac{1}{4}$  gr., with p. ipecac, 1-6 gr., and sodæ carb. 2 grs., at intervals of one or two hours, for one, two or three afternoons; resorting to it only occasionally, and being very careful to avoid pyalism, as the stomatitis will be stubborn and intractable, and the effect will be most harmful.

The dropsical effusion is to be met with active measures to induce sweating, the hot bath, hot air bath or hot pack,

aided by diaphoretics—possibly pilocarpine; together with hydragogue cathartics, elaterium in  $\frac{1}{8}$  gr. doses every hour until free watery evacuations are secured; or croton oil,  $\frac{1}{4}$  gt., by combining two drops of the oil with bread crumb or ext. gentian, q.s., to make eight pills, giving one every hour until the desired effect is secured. While these active measures are at times essential, I may say, imperative, they are only too often temporary, and cannot be repeated too frequently. In many cases digitalis in some form, three or four times a day will have a decided influence on the dropsy, and may be continued for some weeks. It may be combined with squills and lactate of strontium, the latter in doses of 30 grains. When the digitalis is contraindicated, caffeine or strophanthus may be used. Effusion into the serous cavities should be relieved by the aspirator or trochar and canula. In excessive edema of the skin, puncture with scalpel may be resorted to, but using small hollow needles attached to rubber tubing is preferable, being less likely to be followed by sloughing or erysipelas, and will draw off a large amount of fluid; either is better than allowing the skin to rupture. Excoriation of the scrotum and thighs require dusting with zinc oleate. Edema of the glottis is to be met with prompt puncture or incision. An attack of bronchitis, pneumonia or pleurisy also demand prompt measures and a guarded prognosis; as does gastro-intestinal irritation; a moderate diarrhea, however should not be arrested too suddenly, as it may be conservative.

Uremic indications are to be met by active measures of elimination as above suggested, morphia and chloral, or the inhalation of chloroform being required to control convulsions.

While absolute rest in bed or room is of paramount importance in some cases, it will be well to get the patient out in the open air in mild weather as soon as it may be deemed safe, passive exercise only to be insisted on at first, with a very gradual return to moderate exercise, in order to maintain or gradually increase strength and assimilation. Over-

taxing the mental or physical condition at any time to be positively prohibited. Several months sojourn, say from January to April, in a tropical or semi-tropical climate is advisable, if within the means of the individual.

The same general lines of treatment are required in the interstitial form of Chronic Nephritis, with some modifications. The dropsical condition will not require the active measures above suggested, but they may at any time become necessary to ward off uremic conditions. For the anemia I use the Tr. Ferri Chlor., which may be given in half a drachm or even drachm doses, or the citrate of iron and quinine. Headache being a contra indication as to iron in any form. Diuretics will only be needed in occasional instances. The diet, perhaps more liberal, a small quantity of red meat occasionally, must be regulated carefully, the patient "living to eat," and he must remember, objectionable though it be, that he is an invalid. The arterial tension must be met by the use of morphia, nitroglycerine, the nitritis, the iodides, and even the abstraction of blood; and cardiac dilatation put off as long as possible. Absolute rest in bed being rarely required, except in cases of failing heart, in which cases I prefer caffeine, cactus or strophanthus to strychnia or alcohol. While moderate exercise is admissible in most cases in order to maintain strength, etc., rest of body and mind is conducive to the welfare of the patient and the avoidance of complications. Prolonged mental exertion and intense excitement, like excessive bodily exercise, may provoke rapid progress of the disease or the outbreak of complications.

Finally, in all cases we must search carefully for any malarial influence or specific infection, bearing in mind, that we cannot always rely on the statements of the individual as regards the latter; and in some cases of doubt or uncertainty I have found material benefit by a resort to anti-syphilitic measures.

## **Selected Articles**

### **A VISIT TO THE INFERNO, OR A CASE OF APPENDICITIS: A PERSONAL NARRATIVE.**

BY WILLIAM J. ROBINSON, M.D.

I have paid a brief involuntary visit to Inferno, and I have returned. And in honesty and truth, in frankness and sincerity, I will, for the benefit of suffering humanity, relate the incident.

#### **HOW IT STARTED.**

Late in the afternoon, on Saturday, September 27, eleven days after my return from Europe, while writing an editorial with one hand, I caught myself unconsciously rubbing and pressing my abdomen with the other, and became aware that I was not feeling quite well, and that I had some colicky pains. Of course, I paid no attention to it. It would have been better, perhaps, for the integrity of my abdomen and myself, if I had. But we, busy people, have no time to pay attention to every little ache and pain, to every rumble and grumble. And we, haughty intellectuals, often overlook signals of danger and signs of distress, disregard cries of protest from our abused bodies, and pass on. Sometimes it passes off—nature is kind and extremely accommodating—but sometimes we have to pay dearly for our folly.

The pains abated, and when the dinner bell rang, I went downstairs, and had my dinner, though I did not enjoy it. And from 7 to nearly 10 P. M., I was reading aloud a play to Mrs. Robinson. I was not feeling quite well, had to coax my abdomen to behave, but I read the play until the curtain fell on Act IV., and then went to bed. I slept restlessly from 10 to 12, when I awoke feeling very, very ill. I felt sick and nauseated. I could not stand it. So I went and induced emesis mechanically. The food that came out was, after remaining in the stomach for five hours, as intact, as if it had been locked in a steel casket. I saw that

there was complete and absolute inhibition of the process of gastric digestion, which meant that something serious was brewing. For about twenty minutes after the vomiting I felt relieved, then again the same feeling of horrible nausea and retching came on. I drank two-three glasses of hot water and again induced vomiting artificially, which relieved me temporarily. Between midnight and 7 A. M., I drank about twenty glasses of hot water, induced emesis about a dozen times and took about eight enemas. I was thoroughly cleaned out, which served me well the following day, but I felt deathly sick, and terribly weak, and—oh, horror—it was Sunday, and I had so many patients to attend to. And the pains were increasing. And I have a deep rooted objection to pain. I called up my friend, Dr. Goldwater. He said that I had better not go down to attend to the patients, but that was not to be thought of. It was a case of *noblesse oblige*. Several patients had come by special apointment from out of town, and I was not going to disappoint them. At 9 o'clock I went down stairs with some difficulty, and began to attend to my patients, and by the use of a tremendous amount of will power, I kept it up until ten minutes past one. Three or four times I had to lie down for a few minutes, before calling the next patient. When the last patient left, I was all in. When I got up stairs, I could not get to my bed quick enough. I was sick "for fair." In the afternoon Dr. G. called again, gave me a hypodermic of morphine to ease the pain, which was quite severe, and not liking the looks of things, he called up Dr. A. A. Berg, who came at 6 P. M., made the diagnosis of appendicitis—and no catarrhal, either—and advised immediate operation. I didn't like it. Of course, an operation for appendicitis is nothing nowadays—so we are told—it is just as easy as swallowing an oyster, and almost as pleasant as a trip on the ocean or a week in Bermuda, and still when it comes to have our own abdomen slashed, we hesitate a bit, and think: is it really a must? Is it really unavoidable? And there was somebody else

who liked the idea of an operation still less, and that was Mrs. R. She said that "if to operate, then we want to be at least absolutely sure, that there is no alternative." Soon the telephone wires were busy. Dr. S. J. Meltzer, who lives around the corner( and whom I had seen last in Albert Hall, London, in his handsome academic robes) was the first to make his appearance. He corroborated the diagnosis, and said it was not a medical, but a surgical, case. It was for the surgeon to decide how and when to act. Soon Dr. A. Jacobi, bless him, Dr. Max Rosenthal and Dr. L Hauswith arrived. A council of war was held. The nature of its deliberations I learned only later. An operation was decided to be imperative, but Jacobi thought that on the whole, taking my temperament into consideration, it was not advisable to operate immediately—it was 9 P. M. then—but it was best to delay the operation until morning, keeping a careful watch in the meantime. A doctor from Mt. Sinai Hospital was sent for to take my blood count. He very kindly came up at once. When I asked for the result, I was told that my microscope was not in perfect condition, at least he could not manipulate it properly, and that he would take the specimen to the hospital and give us the result in the morning. As a matter of fact, my microscope was, of course, all right, and he could manipulate it, and he found that the normal leucocytosis of 7000 was changed to 32000, which plainly showed that there was a terrific struggle going on within my organism between the germs and my blood cells, and that the latter were calling to arms millions and millions of recruits to fight the nasty, impudent invaders. A nurse was sent for to watch over me during the night, and to report to Dr. Goldwater, who also slept in my house, in case my pulse should become too rapid, or any other danger signal should make its appearance. I passed a restless night, disturbed by disagreeable dreams, somewhat under the influence of morphine, which was considered necessary both to ease my pain and to steady my heart.

At 6:30 in the morning, Dr. Goldwater told me that he had called up Dr. Berg, they discussed the matter and they decided that an immediate operation was the safest procedure, and that the ambulance was here to transport me to Mt. Sinai Hospital.

#### THE AMBULANCE.

Here I must stop for a while. The Mt. Sinai ambulances having solid tires, my friends considerate of my comfort, decided to order a private auto-ambulance with pneumatic tires, and one of the doctors on his way home stepped in to the Crane Oxygen Works and left an explicit order. What they sent up was a wretched, ramshackle vehicle without tires, drawn by two horses, and managed by two incompetent young fellows. The drive from here to Mount Sinai—a matter of five-six minutes—seemed an eternity. It shook and jumped and jolted, and everything within me shook. Had I had an abscess, it would have burst. I felt like going out from that fine “private” ambulance, and take the car or walk. It was a contemptible outrage. I was angry not for myself, but for the numerous other patients who had been and were going to be transported in that wretched wagon and were charged \$10.00 for the “privilege.” Imagine a woman with a ruptured ectopic pregnancy being jolted in such an antediluvian conveyance. When they were remonstrated with the following day, they said that there was a misunderstanding, that the auto was out, etc. But that is no excuse whatever. If I had gotten the auto, somebody else would have gotten the horse wagon. The very possession of such a vehicle by an ambulance company is a *crime* and no amount of explaining will explain away that fact. I spend so much space on the subject of the ambulance, because there is a matter of principle involved. And where a principle is involved, you may be sure I will kick each and every time. The reason so many outrages are daily committed on the public, the reason there is so much graft, so much civic, public and private dishonesty is because we are all too easy going.



too lazy to protest. "Oh, the thing is done, anyhow. It won't do me much good if I do kick." Yes, it won't do *you* much good, but it may do your fellow-being good. Next to doing wrong is the sin of not protesting against wrong when it is brought to our attention. We must be not only be just ourselves, but we must be militant for justice to others.

#### THE OPERATION.

At last we arrived at the hospital; I was taken on the stretcher to the elevator, which soon became crowded with giggling nurses. The elevator stopped two or three times to let off some nurses and let on others. This was extremely annoying, and should not, in my opinion, be permitted. On an elevator in which a patient is taken up to the operating room, there should be no useless, unsympathetic strangers, and the elevator should not be stopped. The nurses and other employees can wait or use another elevator. A small point? Try it, when you are sick.

After being shaved, I was taken into the operating room. There was Dr. Berg and the House Surgeon, several nurses, and a few of my physician friends. Mrs. R. had to wait outside, and she said it was the longest hour in her life. Dr. Berg looked grave. "Why so serious, Dr. Berg?" I asked. "I am not serious," he replied. The house surgeon then began painting my side with tincture of iodine. "He is putting on the iodine in impressionistic fashion," said Dr. Goldwater. "I don't mind, if only he doesn't paint a cubist picture," I replied, and these were my last pre-operative words; for then the inhaler was put on my face and the anesthetist told me to breathe easily and naturally. I had made up my mind to remember all the various ideas that flitted through by brain during the anesthesia, to take note of all the psychic processes, that were going on while I was losing consciousness, while the "soul" was parting from the body, but the first thing I knew I was in my bed, and asking the silly question: How soon am I going to be

operated on? I remembered absolutely nothing. I "went under" very quickly and it was a death-like sleep, without any dreams. From the moment I made the remark about the cubist picture until I awoke in my bed, my mind is an absolute blank. I lost a chance to make some psychic analyses and philosophic reflections, but if all anesthetics are as easy, as pleasant as mine was, then we certainly have made great progress in this respect. It was simpler and pleasanter than smoking a cigaret, which latter I never do. I might mention that I was given nitrous oxide-oxygen-ether.

Of course, to my question: How soon am I going to be operated on, I received the answer, that it was all over. And Dr. Goldwater showed me my appendix in a bottle. I felt good. No pain, no retching, no nausea. The anesthesia produced absolutely no bad after effects; that is, of a subjective character. I had been afraid of it, and I congratulated myself on my good luck, and I rejoiced over the triumphs of surgery, which can cut open a man's abdomen, pother about there, remove an organ, without the patient's feeling any the worse for it. My complete freedom from disagreeable post-anesthetic effects I ascribe to the fact in the night of Saturday and Sunday I cleaned out my gastro-intestinal canal most thoroughly, and that after that I, for over twenty-four hours, had not taken even a drop of water. Yes, I felt good. My condition was distinctly one of euphoria. Mrs. R. asked me how I felt, and I answered that I felt fine, and that I would dictate an article if I had my stenographer there. Yes, I felt fine, and I congratulated myself on the ease with which I got over my trouble. But I was not over it yet. No, not yet. In about three hours I was a different individual. The effect of the morphine had practically passed off, and I awoke with a severe pain in the wound, discomfort from the drainage tube, and what was a real torture, distention of the bowels. And for the next three-four days this distention made my existence hell. It is an indescribable feeling.

One must have it to fully appreciate it. So I thought at the time, and I didn't care if it was a split infinitive. People with split abdomens do not mind split infinitives. The doctors and my nurses were not at all lazy and did everything within their knowledge and power to help me, but only with slight relief. They tried to console me by telling me that such distention was quite common, quite "natural;" but I found no consolation in the fact that the patient in the next room had it much worse than I had. And I thought that the surgeons would do very well, if, instead of devising new operations, new techniques, or new instruments, they would devote a few months or a few years—as long as necessary—to intensive research, how quickly to alleviate, or still better, how to prevent post-operative paralytic intestinal distention. There must be a method—chemical or mechanical—of preventing the formation in or of removing the gas from the intestines. You will not convince me to the contrary.

The second and third days after the operation were my very worst, for to the intestinal distention there became associated another disagreeable phenomenon: extreme arrhythmia. More or less accidentally feeling my pulse on the second day, I noticed that it skipped; six-seven regular beats and then a skip. And having noticed that I could not refrain from feeling my pulse or my heart every few minutes; and gradually the condition became worse: it soon skipped every fifth, third and finally every second beat. And I did not like that. I knew that for centuries back my heredity was a clean one; I knew that my blood had not a trace of any alcoholic or syphilitic taint; that I was not weakened by excesses of any kind—I could not turn out such an amount of work if I were—but my heart was always a little finicky, and resented any extra or sudden strain. And apparently the injection of the anesthesia and the shock in general were a little too much for it, and it began to shirk its work and skip beats. And I thought the possibility of my dying was not such a very remote

one. And I didn't like that. I disliked it for myself, but still more did I dislike it on account of two pathetic figures—Mrs. Robinson and Victor, who I feared were too helpless to be left alone in this cold, cruel world. I felt consoled by the thought that I was leaving them and the other children comfortably provided for, but still I felt it was too soon to leave them. And then occasionally I also felt that perhaps my work was of some use to humanity. And that several thousand people would miss me. I was not very conceited on that point. When one is face to face with death, all conceit falls like a ripped garment from one's shoulders. I know that few men are really indispensable, except to their immediate families; but the hundreds of warm letters that I received from my subscribers since they learned of my illness and convalescence have shown me that I have made some very warm, sincere friends, who have become deeply attached to the *Critic and Guide*, and who consider my work of more than ordinary importance in the cause of truth, progress and humanitarianism.

As I said I did not enjoy the prospect of crossing the border, and still my rapid and irregular pulse seemed to tell me that my hours were counted. Dr. Jacobi, who came to see me every day, made me promise not to feel my pulse, and I kept the promise. But I soon could feel my pulse and count it *in my ear*, which tictac was very annoying. On the fourth day, however, the cardiac condition began to improve, and my troubles then had only three sources: (1) intestinal distension and constipation; (2) insomnia and nightmares, and (3) pain and discomfort in the wound and in the right side. For fifteen nights I suffered terribly: the nights seemed interminably long, and the sleep was fitful and disturbed by dreams and nightmares; on the sixteenth night I had my first normal, refreshing sleep. The various hypnotics that I was given only made conditions worse, and I soon refused to take any. My insomnia was due to a considerable extent to the constant noise out-

side of the hospital, and to this noise I must devote a special paragraph.

#### THE NOISE.

From the moment I woke from the operation on September 29, to the day I left the hospital on October 17, the noise was Nemesis. It pursued me every hour of the day and night. It seemed as if all the noises of the city were concentrated in front of my room on Fifth Avenue. Milk-wagons and trucks, brewery wagons and automobiles, bicycles and motorcycles, baby carriages, children on roller-skates and just loafers, peddlers' carts, organ-grinders and scissors-grinders, all combined in one steady, continuous noise which rendered the day hideous and the night a torture. Very, very often, when I would be just on the point of going off into a peaceful slumber, an auto would whiz by at a rate five times the legal one, the horrible cacophonous auto grunt would shatter my tympana, and then good-bye to sleep for several hours. I had to order the windows tightly closed—I feared I would go insane otherwise. Of course, the air would become stale and stifling, but I had to choose the lesser of the two evils. I do not know how much Mt. Sinai Hospital is worth—one million or ten millions; but whatever it is worth, it is worth fifty per cent less on account of its location. It is a horrible location for a hospital. I have no doubt that the noise has a deleterious, retarding effect on the patients' convalescence. I know it had on mine.

If anybody thinks I am exaggerating, let him investigate, but investigate under the same conditions. Let a director or a surgeon have his abdomen slashed, and then let him spend a few days and nights in a room facing the street. The inside rooms that do not face the street are less noisy, but more disagreeable in other ways: dark and gloomy.

But it was not only the street noise that drove me mad: the noise from within the hospital contributed its quota.

The scullery maids, vigorously scrubbing the floors and conducting *conversations* in a loud voice, the slamming of doors, the rattling of plates, the occasional meetings and confabs of the good nurses, all these things "helped." It is said that Dr. Goldwater, the superintendent of the hospital, has made many valuable improvements in the management of the hospital. Here then is one evil that needs his immediate attention. If the four hundred different street noises are beyond his control, he can at least see to it that the inside noises be reduced to the lowest possible minimum. But I do not believe that even the street noises are beyond the control of the hospital authorities. I am quite sure, that if the hospitals made a united effort to have the city "hospital street" ordinance enforced they would be successful. As it is, it is an absolute dead letter. If they tried, they could have even a stronger ordinance passed, especially so now, with the intelligent and broad minded city officials we have been having and are going to have for the next four years. Do it, gentlemen, for to a sick individual, with the nerves at almost snapping tension, every little noise is intensified a hundredfold. An insignificant noise unperceived by a healthy person becomes to a sick person a roaring thunder, which shatters ears and brain, and drives to despair.

#### THOUGHTS AND DREAMS.

To paraphrase Giordano Bruno, there is nothing absolutely good, nothing absolutely evil in this world. It is all a matter of proportion. There are few evils without some good in them. It was evil that I could not sleep, but then I could think and dream (and later on, read). And what did I not think, and what did I not dream! Thoughts, of course, of the world in general, of its origin and its problematical end, of the why, the wherefore and the whither, of life and death, of design and chance, of palavitalism and neovitalism, of the future of our nation and of other nations, of evolution and revolution, of the ultimate structure of society, of the goodness and nobility

of human nature, also of human stupidity and ignorance, of the absurdity and cruelty of our social-economic system; and I thought of something nearer. I thought of the hundreds of patients in this hospital and in other hospitals, and I thought of their sufferings, of the heartaches and hopelessness of some, of the feelings of those who know that when after they get well, they have nowhere to lay their head, but have to go at once hunting a job; I thought of the feelings of the very ill in the charity wards; here I am in a fine room, with a fine view of Central Park, for which I pay one hundred and ten dollars a week, with two nurses constantly at my beck and nod, with many pleasant visitors, with an abundance of fresh flowers daily, with every delicacy that my palate or my caprice may demand, and still I suffer intensely, and feel wretched and miserable, and am burning with impatience to get the thing over. How must the patients in the free wards feel, who know they are there on sufferance, who have no privacy, who have no bells within their reach, and are attended at certain hours when the nurse or orderly thinks it is the proper time? Poor people!

And I thought of the pitiful conditions of the better class of workingmen, the small business man, the struggling professional man, when they get sick. They do not want, they abhor charity. But it is so expensive to be sick, if you want to pay for everything. The cost of the operation, fifty dollars a week for a room, and if private nurses are needed seventy-five to one hundred dollars a week—how can a poor, middle class man afford it? A serious illness in the family of a person of small means is a serious calamity, and occasionally makes itself felt for years to come.

And I thought further: I personally know of no serious operation performed wantonly, without actual necessity. But suppose the statement made by some that many operations *are* performed needlessly, for the sake of the fee, for the sake of experience or for the sake of a record, are

true. What then? I thought of it with horror. To what low degree of criminal degeneracy must man fall to subject a human being to the ante-operative anxiety, to the shock of the anesthesia, to the post-operative vomiting and retching, to the pain of the wound, to the danger of infection, to the horrible paralytic distension of the bowels, to the nightmarish nights, to the fear of death—and all for some wretched lucre or rotten “reputation.” I can conceive of no more damnable crime, of no more cowardly act of cruelty than to perform an operation when one is not unmistakably indicated, or at least justified.

Oh, for a noble band of physicians and surgeons who would consider the case of every patient a really sacred trust, treating it in exactly the same way as they would want to be treated themselves, or as they would treat their mother, father, sister, bride, wife or child.

This is the only correct criterion. The title of F. A. C. S. is not a sufficient guarantee.

#### A WONDERFUL NIGHT.

And then one night—it was a marvelous night. It was the fifth night after the operation. I am still unable to decide whether I slept that night at all, or whether it was a sort of coma vigil. I do not know whether I was thinking or only dreaming. But the ideas and images kept on chasing each other with incredible rapidity; there were millions of them, and the night seemed endless. It was not an unpleasant night, but it was unique. I call it the Tolstoy night, for throughout the night he occupied the center of the stage, and no matter what I dreamed of, he was there looking down. I dreamed that he was gently floating on the horizon, and was looking down on the puny creatures on earth, and there was so much sadness, so much pity in his eyes—just sadness and pity. In the chin perhaps there could be noticed just a little contempt. And I thought of his “War and Peace,” absolutely the greatest novel of all times, and of his “Anna Karenina” and “Resurrection,” and I could not help feeling contempt for the



horde of pigmies who are inundating our literature with muck and trash. How horribly little some of our great writers even seemed when compared with that colossus! Have we any great writers now? Who are they? In America we haven't a writer that the world would miss. In England we have three or four vital writers: Galsworthy, Hardy, Shaw and Wells. They are fine writers, Galsworthy particularly is looming larger and larger on the literary horizon (his *Dark Flower* is a masterpiece), but still how they shrink on comparison with him. And when I thought of those who in the name of realism have been giving us rot and filth, my contempt became changed into anger. Realism, indeed! No greater realist than Tolstoy ever lived. He was a real realist, because he painted life as it is, both the good and the bad, and was not limiting himself only to the nasty, the filthy, the cruel. His was a living realism—but there was no filth, no obscenity in any of his writings.

And then I thought of a smart magazine, a copy of which I perused during the day and which so filled me with nausea, that I decided not to permit another copy to enter my house. To judge by that magazine, one would think that the world consisted exclusively of sluggers, murderers, thieves, pimps, prostitutes, beggars, grafters, etc. Those types exist and constitute legitimate material for literary writers. But we do not want them for steady and exclusive diet. And for two reasons: 1st, they leave a nasty, awful taste, and 2nd, they give a wrong idea of humanity. In spite of our sensational, erotic, money-mad, corrupt, pigmy realistic writers, most people are decent; there is plenty yet of love, altruism, nobility and self-sacrifice in this world, and in spite of all the sneers at marriage, there are more happy than unhappy marriages. Instead of being true to life, our realistic rot is just as untrue to life as is the worst mushy, romantic novel. Merely untrue in the opposite direction. The latter idealizes life, the former brutalizes it.

Another important point. Besides our desire for new thoughts and for interesting, noble types, we read *belles-lettres* to a great extent for pleasure, for the artistic delight they afford us, for amusement and recreation. Do we get these things from reading the exploits of toughs and sluggers and burglars and the other lovely types of the underworld? When, to rest from hard labor or get some fresh air, we go out for a walk, we do not deliberately wander through the slums, wade through filth, or push our faces into mud and sewage. Do we? No, we select the pleasantest streets, we walk through the gardens and parks, near lakes and the seashore, where we get a view of the most beautiful scenery and see the sunrise or sunset to the best advantage. Well, I want to get out from my fiction literature at least as much pleasure as I do from a pleasant walk. And, therefore, ye dirt-dispensers, away with your filth. It is not even bona fide filth; you write that filth because your tiny talents cannot produce anything that will stand—or sell—on its own merits, and you are, therefore,, obliged to appeal to the pruriency and salaciousness, which, on account of the secrecy surrounding all sexual subjects and the unnatural repression of the sex instinct, exist to a greater or lesser extent in almost all human beings.

And then Tolstoy's face looked down upon me and seemed to admonish me not to be so hard on those people who cannot help it that they are not any bigger than they are. But I was launched.

I had no censor to stop me, and I was going to have my say. I was going to give full vent to the indignation that has accumulated within me for months and months. And a large procession of gentlemen filed before me and I castigated them unmercifully. There were in that procession a lot of clever young men, there were art for "art sake" artists, there were futurists and cubists, pretty phrase makers, logorrheic charlatans, supercilious dandies

and superior, blase, sneering intellectuals. And I addressed them thus—and Tolstoy seemed to approve:

This world is full, full to overflowing of terrible suffering. There is actual starvation, there is mental agony due to fear, superstition and ignorance, there is cruelty and brutality, and there is excruciating physical pain due to accident and disease. Humanity needs millions of earnest workers to alleviate its sufferings, to ease its pain, to clear away the cobwebs of its superstitions, to remove its economic ills, to soften its cruel moods, to heal its wounds, to prevent its diseases and premature deaths. What are you doing towards this work? Making pretty phrases? If you were asked what have you done for mankind, what are you doing to make this world a better place to live in, what would your answer be? From the man who has nothing, knows nothing, is himself uneducated and ignorant, nothing can be demanded. But you, who have both brains and knowledge, what are you doing for humanity? You idle and dawdle. Why, the poor, ignorant salvation army clown is infinitely superior to you, morally; because, according to the dim light—or rather darkness—that is in him, he tries to do something for humanity; he tries to save the race. But you, supercilious, blase egotists, what are you doing? What are you doing, except sneering at others, stigmatizing the work of earnest men and women as foolish and useless patchwork, and throwing cold water on all humanitarian enthusiasm?

Away with you, idlers and dawdlers and pretty phrase makers, who do nothing and discourage others from doing something. Avaunt!

And I thought I noticed a faint smile of approval around the corners of Tolstoy's lips.

And here I felt a sharp prick, for the nurse was giving me a hypodermic of sparteine. The wonderful night did not end here, for I soon dozed off again, and a new panorama opened up. But I would never get through, if I were to put down on paper everything that I dreamed and

thought that night. One can dream and think more in one minute than can be written down in a whole day. And so I will stop here. Perhaps some other time I may continue the recital of my dreams and thoughts on that wonderful night.

#### THE REMOVAL OF THE DRESSING.

There came the day when the dressing was to be removed. And were I to live to be a hundred years old,\* I shall never forget the excruciating, indescribably agonizing pain, which the tearing out of the gauze from the wound caused me. I never thought that such pain could exist. It was worse than cutting with a knife, probably worse than the application of a red hot iron. It seemed as if every nerve in my body was laid bare and was torn and pulled apart. It was cruel, brutal, barbarous. I do not believe that anybody has a right to inflict such pain on any human being—(or animal for that matter), or that the infliction of such pain is necessary. And when one thinks that such pain is inflicted a thousand times every day, one will see that the aggregate is quite appalling. I wonder if a surgeon who had that pleasant operation performed on himself, or who had a near relative faint from the shock of the procedure, is continuing the same way, or has adopted some different method. If there is no way of preventing the dressing from drying and sticking to the raw flesh, then the patient should be mildly anesthetized—a little nitrous oxide would be considered a great blessing. I speak for those who cannot speak for themselves, or do not speak because they think this pain is an unavoidable evil. I do not think that any atrocious pain is unavoidable. If there is no way to avoid it, then let us start finding out a way.

#### "AFTER" THOUGHTS.

We are told that operations are now performed so skill-

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\*A favorite phrase of mine.

fully, so quickly, so aseptically, that they are practically devoid of any danger. That is true. But when an attempt is being made to persuade us that opening the abdomen is not much more important nowadays than, say, the removal of a corn, then I must characterize the statement as slightly exaggerated. I would rather go to Europe for a year at any time; I would rather take a trip around the world, I would rather visit a hundred shows and read a thousand books, than have a serious operation performed on me once. When an operation is necessary, unavoidable, you should not hesitate. But better prevent one if possible.

And how an operation does take the starch out of you! How long it takes you to become your former self. This the surgeons never tell you.

I wonder if in speaking of my case, my doctors would say that I made an "uneventful recovery?" Undoubtedly. Well, if this is an uneventful recovery, then what is one "with events" like? When I read in the future of a patient's making an uneventful recovery, I will have my own opinion. Of course, a deathly depression and sickness all over, a drum-like distention of the bowels, a coating of the tongue and mouth which makes the most delicate food taste like absorbent cotton dipped in kerosene, a weakness which makes you as helpless as a one-day old puppy run over by an automobile, sleepless nights, converted into long nightmares, in which you are set upon and choked and dragged by gaunt death and you try to cry for help and cannot—all these things are not "events." They are natural concomitants of an operation. And, therefore, the patient is reported as having made an uneventful recovery. "Uneventful," indeed.

Many clouds (not all, by any means) have a silver lining. No matter how grumbly I felt at my being struck down suddenly, in the midst of important work, I felt "good" immediately when I thought how lucky I was that this thing did not happen a month before when I was in

some small Swiss village, without any medical practitioner, or two weeks before, while on the steamer, whose only doctor was a much more ardent disciple of Bacchus and Venus than of Æsculapius. I should probably not be here to tell the tale.

It is good to be an optimist, and when you break a leg, to thank fate that you did not break both.—*Critic and Guide.*

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## *Editorial.*

### THE GALLOWAY MEMORIAL HOSPITAL.

The first unit of the Galloway Memorial Hospital was begun on November 7, 1912, when ground was broken and the work formally launched, with Bishop W. R. Lambuth delivering the principal address. The cornerstone was laid on July 7, 1913, by Bishop Lambuth, and Dr. J. A. Witherspoon, President of the American Medical Association and a director of the Galloway Memorial Hospital, delivered an address, which we had the pleasure of placing before our readers in our August number.

This first unit when completed will represent the outlay of approximately \$235,000. Until the other departments are finished, it will comprise a complete hospital within itself, accommodating 100 charity beds, thirty-two pay rooms with about fifty beds, operating apartments for both pay and charity service, a free dispensary, as well as kitchen, laundry, linen and domestic service rooms. Features will be the ambulance porch immediately beneath the operating apartments, the roof gardens reached by electric elevators from the different wards, and many other modern conveniences.

The foundation is built of native stone, the walls of gray brick with burnt red trimmings, the partitions of hollow tile, the floors of hollow tile and reinforced concrete and the roof of tile. The heating system will be hot water with thermostatic control, and fresh air supply will be furnished by means of electrically-driven fans, and the entire building will be equipped with telephones and nurses' and internes' signal systems.

Contracts have been awarded to Nashville firms, with one exception.

The hospital board was fortunate in the selection of its architects, who have made a study of hospital architecture for thirty years, both in Europe and America, and consequently are specialists in this work.

They are planning for Nashville a hospital that will not have a superior anywhere in the United States, the management states.

According to present plans, the walls are going up rapidly, owing to our mild weather during the winter, and from all indications the roof for this first unit will be completed by April, and the entire building will be pushed to completion as rapidly as possible to accommodate the growing demand for increased hospital service in this city and section.

The commissioner, Rev. A. E. Clement, and a number of able solicitors are conducting a campaign of Middle Tennessee in the interests of this institution, and feel confident, they say, of raising at an early date an amount sufficient to place the hospital on a firm basis. This is an institution that should be of more than passing interest to every medical man in the State, and especially to those in Middle Tennessee.

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#### SOUTHERN ASSOCIATION OF RAILWAY SURGEONS.

The Board of Counsellors of the Southern Medical Association at its last meeting in Lexington, Ky., Nov. 18, organized a Southern Association of Railway Surgeons, which will meet annually the day before the Southern Medical meets, and while continuing its session until finishing the programme, its members will also have the opportunity of attending the three days session that follows of the Southern Medical, of which the Railway Surgeons' Association is an auxiliary.

The first meeting will be held in Richmond, Va., Nov. 9, next. Dr. Duncan Eve, of this city, is the President; Dr. Thomas H. Hancock, of Atlanta, Ga., is the Vice-President, and Dr. Clarence H. Vaught, of Richmond, Ky., is the Secretary. All surgeons joining before or at the Richmond meeting will be known as charter members. It is necessary to be a member of the Southern Medical before joining the Railway Surgeons' Association, but no more dues are required if a member of the latter. In fact, the dues of three (\$3.00) dollars per year is all that is required to be a member of the Southern Medical Association and the Southern Association of Railway Surgeons (provided he is a Railway Surgeon). This also entitles members of either or both to one year's subscription to the *Southern Medical Journal*, the official organ of both associations.

The South has long needed a Railway Surgeons' Association, for all other sections of the country have such organizations, as the New York and New England, the Western, the Central and several State Associations.

We congratulate our Southern Surgeons who may become mem-

bers of this organization, and we predict that, like its parent association, it will develop rapidly in numbers and usefulness.

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#### WHY LOBSTERS AND 'RABBITS' AID DIGESTION.

Medical information, like many systems of philosophy, is eminently satisfying in one regard—that with patience one can find proofs to support any pet habit or even little vice. Now comes to the front a Carlsbad doctor who warns his colleagues gravely against insisting on too well-measured a diet. Especially is he aroused against the false belief creeping into the European war departments that on a campaign soldiers can be fed on tabloids which will contain in highly concentrated form the nutritive qualities of a large quantity of food.

There are a large number of poisonous products that are constantly being discharged by various organs of the body, in order to keep up the health of the body, that these should not be retained in the intestines. But, Dr. Lorand points out, the wave-like motion of the intestines is primarily mechanical, and peristalsis (which is an opening and closing movement, shoving the food along) cannot continue unless there is some bulk of food on which it can take effect.

Hence follows the singular result that if we ate only the food we ought to eat, that solely essential to nutrition, we should be worse off than if we ate a great deal of material that has no nutritive qualities whatever. Vegetables, for example, rarely have much nutrition, yet they are among the most valuable aids to digestion, because the cellulose undergoes few changes and yet renders it easy for the intestines to carry off products that are no longer needed in the body, whereas meat and finely ground cereals are absorbed by the body with but little residue.

The lobster, of the "lobster palace," and the "rabbit," of Wales, must therefore be ranked as valuable aids to dietetics, and those whose tastes run in those directions may solace themselves during the subsequent attacks of indigestion with the thought that they are doing themselves good by not being too precise in the selection of food material.

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#### WALKING AS A MEDICINE.

Recommending walking as a medicine, particularly at this season of the year, an eminent physical culturist gives many sensible suggestions as to proper and comfortable apparel. Thick shoes, laced well up above the ankle, with broad and fairly heavy soles and broad heels, for both men and women; any old suit of clothes for a man, and a short skirt for a woman, reaching only to the shoe tops—these are requisites for comfort.



Walking is conceded to be equal, if not superior, to all other exercises in its health-producing effects on the body. Its effects on the mind and spirits are not less marked. Emerson quotes with approval the saying of some other philosopher that walking "is almost a cure for a guilty conscience." And the Concord sage declared that in his serene and happy hours he thought "all affairs may be wisely postponed for walking."

The wonder is that so few avail themselves of such a cheap, accessible and efficacious means of health and enjoyment; that city parks and parkways, suburban streets and country roads throughout the land are not crowded Sundays with pedestrians. This section is the best place in the world for walking, as for many other things.

A walk in any season of the year of 5, 10 or 12 miles, in almost any sort of weather, even in a storm, leaves its exhilarating and fortifying influence for days upon the person of sedentary habits. One trip through the woods after or during a snowstorm is enough to make a confirmed winter walker of any one. It is wiser to spend money on sole leather than on pills, potions and powders.

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#### NATIONAL DRAINAGE CONGRESS—SECTION ON MALARIA ERADICATION.

This section was organized during the Third National Drainage Congress held at St. Louis, April 10-12, 1913.

The objects of the section are to stimulate the study of the distribution, prevalence and economic importance of malaria, to conduct a campaign of publicity as far as means will permit, and to devise ways and means to effect a permanent and efficient campaign against this grave disease.

The next meeting of the Congress will be held in Savannah, Ga., in 1914, the exact date to be announced later. At this meeting an extensive malaria program is contemplated. All physicians are eligible to membership and are cordially invited to attend the meeting.

The Chairman of the section is Dr. Oscar Dowling, of New Orleans, La., and Dr. Wm. H. Deaderick, of Hot Springs, Ark., Secretary.

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**A NUTRITIVE TONIC:**—The study of the ultimate purpose of all food ingested and followed through the gastrointestinal tract conclusively proves beyond all doubt that from it are abstracted the necessary elements for the development of normal arterial blood the purpose of which is to supply to all the cells and tissues nutrition and tone, and that where there exists a malnutrition from improper food or feeding the blood is the first tissue to suffer; then, too, all diseases, acute or chronic are preceded by a departure from the normal standard of the blood. The "Blood is the Life;" this is literally true.

Bovinine is scientifically prepared from the arterial blood of sterile steers and is rich in protein, serum, albumen globulin, and elementary iron. That these elements are the very highest concentrated essence of nutrition and tone, is unquestionably admitted by physiologists today. Granting the above facts of this statement to be so, and it surely is, we ask you, Doctor, Is Bovinine a valuable nutritive tonic?

Now, a remedy may have much to commend it from a theoretic standpoint, and yet may fail when put to actual clinical test, so the question asked by a busy practitioner: "Does it give results?" Reports from many physicians, clinics and hospitals indicate that *Bovinine* is the most rational and the most successful nutritive tonic ever devised.

Bovinine has been on the market for over thirty years, and during that time there has been ample opportunity of observing hundreds of cases of all kinds, and it has been noted that the physicians who use Bovinine faithfully, invariably have splendid reports to make of its success.

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LIPPINCOTT'S MAGAZINE FOR MARCH, 1914:—For originality of plot and power to please, the March novelette challenges comparison anywhere. "*The Man in the Street*" is by Mary Imlay Taylor. It will be especially liked by theatre-goers and theatrical people because the fascinating heroine is of "the craft." There is big human, universal appeal in every line of this story. The many short-stories have been chosen for their merit, and after reading these you will not want to forget the names of the authors. By Crittenden Marriott there will be an adventure of Civil War time, called "*His Surrender*." One of Carolyn Well's brightest inventions will be "*The Silent Model*." Business life in the West will be dealt with in Joe H. Ranson's story, "*Reprisal*." Different in charm from everything else will be "*Love o' Man*," by Caroline Wood Morrison and Emma Bell Miles. Your emotions will be profoundly stirred in reading "*Old Hakka*," a tale of father-love, by E. Young Wead. Then there will be an amusing restaurant episode, "*Nine Points of the Law*," by Thomas Grant Springer. Brander Matthews will talk entertainingly—and at the same time with authority—about "*The Dramatization of Novels and the Novelization of Plays*." Forbes Lindsay's article on "*The Panama Canal and the Pacific Coast Ports*" carries information of the greatest importance and interest at this time.

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BACTERIAL VACCINE THERAPY:—Treatment of infectious diseases with preparations derived from corresponding micro-organisms is unquestionably growing in favor. Not only do the bacterial vaccines

(or bacterins) seem destined to a permanent place in therapeutics, but their field of applicability is constantly broadening. Proofs of this is seen in the growing list of these products announced by Parke, Davis & Co., no less than nineteen of the vaccines now being offered to the profession.

There are a number of reasons for the favor which is being accorded to the bacterial vaccines. In the first place, these products are in consonance with the scientific trend of present-day medication. They are being used with a gratifying measure of success. The way in which they are marketed (sterile solutions in hermetically sealed bulbs and in graduated syringes, ready for injection) appeals to the modern medical man, since it assures both safety and convenience. The moderate prices at which they may be purchased also tend to give them vogue.

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**PREVENTION OF NEPHRITIS:**—In scarlet fever, diphtheria, typhoid and other infectious diseases, it is a commonplace of practice to watch the urine and to take every precaution against nephritis. The discovery of the peculiar property of the chemical combination,  $C_6H_{12}N_4$ , to give off formaldehyde and other obscure, but effective, antiseptic agents, *at body temperature only*, was one of the most epoch-making in the history of therapeutics. Cystogen, a refined preparation of the afore-mentioned chemical, has been extensively prescribed for more than fifteen years and has been preferred to other products by many physicians on account of its uniformity of action and non-irritating property. More recently, Cystogen-Lithia (cystogen 3 grs. and lithium tartrate, 3 grs.) in the form of an effervescent tablet has been given preference; one of these tablets dissolved in a glass of water, makes at once a proper dose and menstruum, to be taken at meal times or between meals, as the prescriber may direct.

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**CONSTIPATION OF INFANTS:**—In the adjustment of diet to the particular requirements of the individual infant, constipation is often a prominent symptom that must be taken into account.

The baby that is habitually constipated is not likely to make the progressive gain that is desired, and when this condition exists for any great length of time it may lead into serious digestive disturbances.

Efforts that have resulted in a large measure of success for the Mellin's Food Method of Milk Modification have brought to notice certain food changes which may be made use of in the dietetic treatment of constipation. These food changes are briefly set forth in a pamphlet which physicians may obtain by writing to the Mellin's Food Company, Boston, Mass.

**DANGER DUE TO SUBSTITUTION:**—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of “just as good” than the scientifically standardized Eucalyptol. The more recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No “Just as Good” allowed.

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**THE THERAPY OF CHRONIC COUGHS:**—The logical therapy of chronic coughs does not lie in the use of soothing expectorants whose main purpose is the blunting of the mucosa's sensibility and which do not really help the bronchial tree free itself of the cough's cause—such treatment is palliative.

The logical treatment of chronic coughs embraces the continued use of a tissue food which will enable the system to throw off a cough—Cord. Ext., Ol. Morrhue Comp. (Hagee) for instance. Codliver oil in the form of this cordial quickly demonstrates its marked value in this condition.

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**DISTINCTIVE FEATURES OF ANASARCIN** are: Dependability of the cardiac stimulant and diuretic properties of its ingredients made certain by standardization of toxic, cumulative effect; distinct, definite dosage; absence of ill effects after prolonged administration; constructive influence upon circulatory and nutritive processes; and restoration of balance between arterial and venous systems.

Clinical results have proven Anasarcin to be of unsurpassed value in disorders of the circulatory system, and especially in ascites; controlling heart action, relieving dyspnoea and eliminating effused serum.

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**THE MEDICAL SOCIETY OF THE MISSOURI VALLEY** will hold its twenty-sixth semi-annual meeting at Lincoln, Neb., Thursday and Friday, March 26-27, 1914. Headquarters and meeting place, Lincoln Hotel.

**Officers**—Flavel B. Tiffany, President, Kansas City, Mo.; Granville N. Ryan, First Vice-President, Des Moines, Ia.; Austin McMichael, Second Vice-President, Rock Port, Mo.; O. C. Gebhart, Treasurer, St. Joseph, Mo.; Charles Wood Fassett, Secretary, St. Joseph, Mo.; A. I. McKinnon, Chairman Committee of Arrangements, Lincoln, Neb..

**THE RELIEF OF HEADACHES:**—One of the reasons that make Pasadyne (Daniel) particularly suitable for use in headaches and neuralgias, is its freedom from danger. Not only this, but, furthermore, its employment does not subject the patient to the jeopardy of drug addiction. Pasadyne (Daniel) is merely a distinctive name for the most potent concentrated tincture of *passiflora incarnata* at the profession's command. Use it in headache and neuralgia and note its effect. A sample bottle may be had by addressing the Laboratory of John B. Daniel, Atlanta, Georgia.

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**PANOPEPTON:**—Exhibits at moments of urgent need energising and sustaining effects often considered "remarkable"—so described by the physician; peculiarly useful as an "accessory food" for the convalescent and the invalid; having many special uses—in the "rest feeding" of infants, for instance. In fact, Panopepton, the perfectly soluble, highly diffusible food for the sick, proves a peculiar "ability for good service" to the physician and his patient in a wide range of conditions.

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**THE UNREST OF ACUTE INFECTION:**—It frequently happens that one of the most annoying symptoms of an acute infection is a state of marked restlessness. An agent of particular utility in this condition is *Bromidia* (Battle), which, although administered in small dosage, may be relied upon to quiet the wrought up nervous centers and secure for the harrassed patient the rest he so obviously needs. We have been using it for more than thirty years, with the greatest satisfaction.

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**DEFFICIENT ELIMINATION OF UREA** will give sytoms varying from a slight headache to uremic convulsions. In Bright's Disease and nephritic conditions its elimination can be raised by the use of *Nephritin*, an animal extract made by Messrs. Reed & Carnrick, 42-44-46 Germania Ave., Jersey City, N. J. Write to them for sample and more detailed information.

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**A SAFE AND DEPENDABLE ANALGESTIC:**—*Phenalgin* affords rapid relief from pain; does not cause depression, or lead to habit formation. Most rebellious attacks of dyemenorrhœa can be controlled by it. If you have never tried it, write to The Etna Chemical Co., 708-710 Broadway, New York City, for samples.

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**PERSONAL USE OF PRUNOIDS** has been thoroughly convincing of its properties as an ideal laxative, free from cathartic annoyance, and assuring physiologic avacuation without unpleasant after effect.

EXPERIMENTS show that alcoholism in parents causes nervous disorders in the next generation and that the second generation, while never intoxicated, transmits these defects in an accentuated degree.

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THE SANITATION of the Panama Canal Zone has been so perfected that last August not one death occurred among the 12,000 white inhabitants.

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## Selections

THE TREATMENT OF GOITER:—The administration of iodine both internally and externally is one of the oldest forms of medical treatment for goiter, but even now, after the enormous amount of study which has been made of the relationship of the iodine content of the thyroid in relation to the symptoms of Graves's disease by Baumann, Marine, Hunt, Smith and others, the administration of the drug is still far from being on a scientific basis.

As a preparation for thyroidectomy in severe cases of hyperthyroidism, rest treatment to quiet the heart improves active symptoms. The use of the Rontgen ray will sometimes cause temporary amelioration of the more severe symptoms, and in the still more serious cases of this type the injection of 1, 2 or 3 drams of boiling water (Porter's method) into a lobe of the gland acts favorably in improving the condition of the patient.

From results so far obtained it seems indicated that the vessels and at times a portion of the gland should be ligated in certain cases: (1) In those patients suffering from mild symptoms of hyperthyroidism which are hardly severe enough to warrant a thyroidectomy; (2) in that large group having acute, severe exophthalmic goiters, and the chronic and very sick patients who, having exhausted all forms of treatment, are now suffering from various secondary symptoms, and (3) in cases of marked pulsation and thrill of the thyroid arteries associated with dilatation of the heart and loss of weight. Great improvement fol-

lows the ligation in these cases and later thyroidectomy is advised, since there may be a relapse to the former condition. Should the condition recur before a partial thyroidectomy is made, or should a severe relapse occur after partial extirpation, the inferior thyroid artery should be ligated and half the remaining lobe removed when improvement occurs. In surgical operations on exophthalmic goiters the mortality at present varies from 1 to 3 per cent. The causes of death are acute hyperthyroidism, embolism, pneumonia, hemorrhage, sepsis, etc.

The treatment of toxic non-exophthalmic goiter (Plummer) is, in the mild or early stages, practically the same as that of simple goiter. In its severe or advanced stages the mortality is as high or higher than that of exophthalmic goiter of similar severity and stages of symptoms. The term "simple" goiter should be dropped and the term "atoxic" substituted as covering the majority of the cases, while those cases which present any toxic symptoms should be described as "toxic non-exophthalmic." The operative treatment for the uncomplicated, non-toxic thyroid is approximately the same as that for the simpler types of exophthalmic goiter, section of the muscles not often being required, however. Operations on adenomas, colloid thyroids, or diffuse adenomatoses, as a rule, involve but slight risk to the life or the individual. Many patients who are so afflicted wish to be relieved of the deformity, tracheal pressure, hoarseness, or possibly of a severe neuralgia.

Intrathoracic goiters and deep substernal goiters are of serious import and are found about once in forty operations for simple goiter. Slight substernal projections are much more frequent. The diagnosis rests on (1) dull area on percussion; (2) the roentgenogram, and (3) evidences of substernal pressure. Probably one-sixth of the original gland-cells are competent to furnish all secretion necessary. It is best, therefore, to preserve this much of the gland until there is more evidence furnished that all of it can be removed with no ill effects, as is claimed by some

surgeons in their treatment of exophthalmic goiter. Less than 1 per cent of the cases operated on in the Mayo clinic show malignancy. Both cancer and sarcoma occur, the former with much greater frequency. The diagnosis should, if possible, be made before the growth has penetrated the capsule and involved the neighboring structures, *e. g.*, the trachea and muscles. The only treatment affording any hope of relief is removal of the entire thyroid tissue. Unfortunately early glandular and lung metastases are common. When recurrence takes place the process is more rapid than before operation.—*Summary of Article in Northwest Medicine, Dec. 1931, by Chas. H. Mayo, M. D., in Monthly Cyclopedic and Bulletin.*

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**THE ODOR OF IODOFORM:**—The odor of iodoform may be removed from the hands by the application of mustard. Moisten the hands with cold water, place a small quantity of dry mustard in the palm, rub it well over the hands, and wash off with soap and water. The odor can be removed from utensils in the same way, with the exception that the mustard paste should be allowed to remain on for several hours; a solution of sodium hydroxide will also answer the purpose.—*The Hospital.*

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**CAFFEINE AS A HEART STIMULANT:**—Ortner regards caffeine as a more efficient substitute for digitalis than is either strophanthus, sparteine, or convallaria. He states that in physiological doses caffeine strengthens the heart muscle, expands the coronary vessels, increases the peripheral arterial pressure, quickens the pulse at first and then slows it, and increases diuresis by direct stimulation of the renal epithelium. It is the best substitute for digitalis if the blood pressure is low—never if it is high—and its use is particularly advisable if marked alterations in the heart muscles contraindicate digitalis. It has an effect in the last stage of cardiac insufficiency when all other heart stimulants are useless.



Caffeine is best given in one of its loose double compounds, as caffeine-sodium benzoate, caffeine-sodium salicylate. As a heart stimulant the dose of any one of these is 10 to 15 grains daily. The following prescription is recommended:

R Caffeine-sodium benzoate, or salicylate 3 grams  
 Distilled water .....130 grams  
 Jamaica rum ..... 20 grams

Of this solution 1 tablespoonful should be given 3 times a day.

A solution of caffeine is preferable to a powder, as caffeine in the solid form causes in many individuals discomfort or pain in the stomach, nausea, and vomiting.

Caffeine may be administered together with digitalis, as in the following:

R Infusion of digitalis.....180 grams  
 Caffeine-sodium benzoate ..... 1 gram  
 Simple syrup ..... 15 grams

The dose of this mixture is 1 tablespoonful 3 times a day.

Braun has shown in experiments on animals that caffeine counterbalances the tendency of digitalis to contract the coronary vessels of the heart.—*Med. Record.*

**OPEN WINDOW SCHOOL ROOMS:**—It is a logical process of reasoning easily understood, that since fresh air has been found a boon to invalids and sickly children it is even more important to supply an abundance to healthy children in order that they may retain their good health and develop as nature intends children should.

As parents realize this truth more and more, there is a growing demand for the teaching of their children in Open Window Class-rooms. In our day the gospel of fresh air and sunshine should need little preaching; most of us accept it. But we do not always practice the doctrine we believe in and teach. Too many of our schools are overheated and poorly ventilated; too many of our homes and offices are human drying ovens.

It was found at the Bache School in Philadelphia, where careful tests were made last year, that pupils taught all through the winter in rooms with the windows wide open, did better work, enjoyed better health and as a consequence were more regular in attendance than their fellows taught in the warm air rooms.

Almost anyone on reflection will be impressed with the futility of expecting a maximum progression physical and mental, when children are housed in over-heated rooms, with little or no moisture, compelled to sit in uncomfortable positions and perform tasks prodigious and complicated to feeble and inactive minds resulting from undernourished and devitalized bodies. Such children, passing on dismissal into the cool moist atmosphere outside the building have their respiratory mucous membranes suddenly chilled, and catch cold. Not so with the children from Open Window Rooms, breathing a mixture of air and moisture exactly like that and of the temperature of the outside atmosphere. They keep well, are more active and alert.

The effect of cool fresh air is to create a desire for active exercise, a natural physiological demand for increased circulation of the blood. To meet this need short physical exercises at frequent intervals between lesson periods are necessary. Such are shown by the Motion Picture of Bache School children that will be loaned to careful Committees seriously engaged in securing fresh air advantages for other children anywhere.—*Pacific Med. Journal*.

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THE DIAGNOSIS OF GASTRIC ULCERS—The history and symptoms of gastric ulcer are typical in but few cases, remarks J. R. Verbrycke in *The American Journal of Medical Sciences* (Nov., 1913, p. 742). There is no characteristic sort of pain, although in the different individuals the pain usually does appear at a fixed time after meals, and always at the same time in the same patient. This pain is relieved by food, alkalis or vomiting. The vomiting of blood, one of the old cardinal symptoms, does not appear in ten

per cent of the patients; and even nausea and vomiting, while many times present, are absent in fully one-half of ulcer-patients.

Two points are of decided value in the consideration of the history: (1) There is a certain periodicity; that is, after prolonged ill health all the symptoms may be completely relieved for days, weeks or months; (2) when the pain is most severe, all other symptoms from which the patient suffers are likely to be increased. Upon physical examination, a tender point will usually be found at some spot in the epigastrium or at the dorsal vertebræ behind, or in both places. However, this tenderness is often slight, and it may be absent. When present, it always occurs in the same spot.

Of the laboratory tests, Verbrycke attaches more importance to the determination of occult blood than to anything else. Since the bleeding is intermittent, several examinations should be made under varying conditions.

The benzidin reaction is the best of which the writer has knowledge, but blood from hemorrhoids, from the gums and elsewhere along the alimentary canal should be excluded. Also of value is the thread-impregnation test of Einhorn. Hyperacidity is found in a large proportion of the cases, but may be absent. The X-ray examination is of undoubted value.

To summarize, Doctor Verbrycke submits that there are several points which practically assure a diagnosis; namely: tender point, with occult blood; hypersecretion, with tender point; hypersecretion, with occult blood; tender point, with repeated positive thread tests; tender point, with hematemesis; hematemesis, with hypersecretion; hypersecretion, with positive thread tests.

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PITUITRIN AS AN ECBOLIC IN SEVENTY-SEVEN CASES:—  
In the *New Orleans Medical and Surgical Journal* for June, 1913, Benson asserts the value of pituitrin in obstetrical

work is amply demonstrated and indicates a more pronounced oxytoxic action in the multipara. It is the only remedy that Benson has found which can be depended upon in preventing serious complications. Before adopting the use of pituitrin he sat many nights waiting for pains to appear after the cervix began to dilate.

These cases, especially the multipara, were not only a source of worry and vexation, but they required a great deal of the valuable time of a busy physician, as it was not safe to leave them for a sufficient length of time to attend to other professional duties. The administration of pituitrin seems to close that gap of time intervening between the true onset of labor and the final stage of delivery, which has frequently caused unnecessary loss of time to the physician and a waste of force and energy on the part of the patient.

The prompt and decided action of pituitrin in the average case is nothing short of wonderful. Of the total number of seventy-seven cases referred to, twenty-seven were primiparæ and fifty multiparæ. Of the twenty-seven primiparæ, fourteen cases had normal delivery, and in thirteen cases forceps were applied. Of the thirteen cases of forceps, the pains were increased by the pituitrin to a very marked degree, but not sufficient to complete labor, and seven of the number were of abnormal presentation.

Of the fifty multiparæ cases, pains were increased to a very marked degree, with one exception. Forty-four were delivered in twenty minutes to two hours. In six cases forceps were applied, three of which were abnormal presentations.

Not only is pituitrin of great value during labor, but leaves the patient in much better physical condition after it is completed. Also, the child seems to be in better general condition. Whether it is due to rapid delivery, or to the effect of pituitrin upon the heart, Benson asserts he is unable to say.

In the multiparæ cases very few had after-pains, and

where they were present did not last more than ten to fourteen hours. He has further noted that the uterine contractions remain more permanent and the lochia flow quite normal. Since beginning the use of pituitrin he has entirely discarded ergot and has had but one case of hemorrhage in the entire experience, which was controlled promptly by packing the vagina with cotton tampons. This case followed a forceps delivery, and, when once controlled, the hemorrhage did not return.

In administering pituitrin it is important to use a fresh preparation, and the syringe must be free from particles of any other substance, particularly alcohol, which seems to interfere with the action of pituitrin. He finds better results following the subcutaneous injection well under the skin in the gluteal region, not in the muscles or fatty tissues. It is also important not to give chloroform before the child's head is pressing upon the perineum, as its early administration retards the action of pituitrin, delays labor, and necessitates a second injection.

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**SAFE ANTISEPTICS IN GONORRHOEA:**—Tincture of iodine irrigation in solution of from one to four drachms to a quart of hot water is said to be one of the safest and best antiseptics that can be used in gonorrhœa. The strength of the solution and number of irrigations a day depend on the stage of the disease. To keep the urine bland and non-irritating, sanmetto should be administered in teaspoonful doses three or four times daily throughout the treatment. In cases of extreme acidity of the urine one of the potassium salts will be found helpful.—*Canada Practitioner and Review*.

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**ETIOLOGY AND DIAGNOSIS OF NEPHRITIS.\***

**BY W. A. OUGHTERSON, M. D., OF NASHVILLE, TENN.**

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The term nephritis is commonly used without any definite meaning, inasmuch as there is a number of different pathological states met with in consideration of kidney disease, it seems to me the term is bad as it makes no effort at distinguishing between the surgical conditions, the degenera-

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\*Read at regular meeting of the Nashville Academy of Medicine  
Tuesday, March 3, 1914.

tive, and the many different toxic factors, as well as those due to circulatory disturbances.

Time will not permit going fully into details on the subject at this time so I will attempt to call attention to what I believe are the more important features of the disease under consideration.

#### ETIOLOGY.

Heredity is a predisposing factor I think no one will doubt who goes into the history of his case; to quote Osler, "the material used in the make up of the machine is an important factor in all cardiovascular disease." Much has been written on the pathology and symptomatology of renal disease in the past, the etiology being left in the background, there is still much room for investigation into the etiology of kidney disease, as many cases occur in which no cause can be found, and when one thinks carefully over the subject of kidney disease a very interesting phase comes up, does kidney disease ever occur primarily? So far as I am able to determine we have no proof that kidney disease ever occurs prior to disease elsewhere in the body; on the other hand we have abundant proof that kidney disease is secondary to other pathological processes in the body in many instances. I wish to make myself plain, and will say there may be many primary kidney diseases that are not understood; to my mind the proof is insufficient to establish the claim that primary kidney disease occurs.

The causes that have been demonstrated are those of infectious origin, the so-called hematogenous or descending, and those reaching the kidney by the urine—ascending.

The hematogenous are of two varieties, the diffuse and the focal; the diffuse due to soluble toxic substances circulating in the blood, the focal to lodgement of bacteria producing emboli. The diffuse hematogenous nephritides due to soluble toxic substances are further analyzible from an etiological standpoint, and here it is interesting to note that the different soluble toxins seem to be to a certain extent selective regarding the particular structure of which

the kidney is made up; one set of toxines pick out the epithelial cells of the tubules, another has a selective effect on the glomeruli, and the third group investing the smaller arterioles.

The toxic affections of the glomeruli may be acute, sub-acute, or chronic, and many of the desquamative forms or of the intracapillary forms (thrombosing), in all cases the commonest etiological factor, seem to be the streptococci or their toxine; this form being commonest after scarlet fever, tonsillitis and other forms of streptococcic infections; and there seems to be good evidence that the pneumococcus, staphylococcus, typhoid and colon bacilli can at times produce glomerulo-nephritis. The streptococcus of tonsillitis seems to head the list in the hands of all investigators, it is further pointed out by many that the glomerulo-nephritis seen in tuberculosis, diphtheria, dysentery, chronic bronchitis, and other diseases is due to the accompanying streptococci.

The cold and chilling of the body, so often referred to in our text books as a cause of nephritis, to my mind, means the lowering of the vitality of the individual and lighting up a latent focal point of infection, especially quiescent streptococci.

Osler like all other writers includes chilling of the body as a cause of nephritis, in the same chapter states that in all his experience in Canada he did not see a single case of chilling that resulted in nephritis, not even those cases that resulted in frost bite. The gall bladder and appendix are such well known factors in kidney disease that further mention is not necessary, I name them here simply in connection with the digestive tract; colitis with even slight ulceration is by no means an uncommon cause, especially those cases associated with stasis; then comes the absorption of decomposing food substances from the digestive tract, the protein bodies seem to be the chief factors concerned, this would raise the question as to milk diet in many cases of nephritis notwithstanding it has been tim-



honored; yet clinical experience has demonstrated that certain cases do better on a minimum of milk.

Still another school attempts to explain kidney disease on a basis of the chemistry of the colloids. A few words in support of this theory, when we recall that the proteids of the body as well as the lipoids and its carbohydrates making up the cells and the histological structure, and even the blood plasma is in a colloidal state. Colloidal states of substances are met with sometimes in liquid form when they are known as *sols* (in the chemists' language), sometimes met with in a solid form when they are known as *gels*; so that we have the gels and sols to deal with; life depending upon the existence of substances in colloidal states in the body cells. In physiological and pathological processes colloidal states undergo many changes of condition, thus sols may be converted into gels (the process of gelatinization), the process of true gelatinization is reversible and the gels can be converted into sols, and we may therefore have to deal with alternating gelatins and liquefactions. The process of gelatinization is closely allied to the phenomena of swelling or imbibition, that is, to the property possessed by many substances to take on a jelly-like form (or emulsified state), when placed in contact with fluid; the amount of water in every cell, the turgescence of the cell, and the extent to which the cell constituents may pass from a gel to a sol-state, or, from sol to gel are determined by properties peculiar to colloids.

Protein substances have a specific avidity for water varying with the conditions under which the colloids are placed, for example both acids and alkalies change the avidity—increasing it, while salts may either increase or decrease the capacity to take up and hold water.

It appears that bromides, nitrates, chlorates, and chlorides increase the capacity for swelling, bromides most—chlorides least, while acetates, citrates, tartrates and sulphates decrease the capacity for swelling, acetates least, sulphates most.

Fisher, of Cincinnati, has asserted that nephritis is due to a disturbance of colloidal chemistry on the one hand, and a disturbance of equilibrium between acids and bases in the organism on the other. He asserts that all the changes that characterize nephritis are due to a common cause, namely to the normal production or accumulation of acid in the cells of the kidney. Resulting from this excessive acidity there is abnormal swelling of the tissue structure, which accounts, in his opinion, for the albuminuria, cloudy swelling formation of casts, and the quantitative changes in the urine, and changes in the amount of diseased substances excreted. He supports his ideas by experimental work in animals, and clinical observations on human beings.

It is my opinion that only a certain class of cases will fit Dr. Fisher's theory, on the other hand, we do find individuals suffering from a state of (so called) acidosis (a term rather difficult to get about at times), associated with a serious disturbance of their metabolism. In fairness to Dr. Fisher's theory, it would seem that as a result of the long continued passage through the kidneys of an irritating chemical substance there must be some change resulting, and had Dr. Fisher made a more careful effort to select his cases instead of trying to place them all in the same category he would not have brought upon himself the severe criticism which has resulted from his bold assertions. I am not sufficiently skilled in physical and colloidal chemistry to criticise Dr. Fisher's theory of the part that the chemistry plays, but I can say from clinical experience, his contentions fall short in many cases based on treatment. On the other hand, I believe any fair person must admit that Dr. Fisher opened a fruitful field for investigation.

Dr. Sellards has demonstrated in a certain proportion of nephritic patients that they require a larger amount of alkali to be injected into their blood to make the urine alkaline than do normal individuals. Hoesslin found that the administration of soda-bi-carb. in rather concentrated solutions led to a decrease in the albumin in cases studied by

him. It would seem to me the nephritis associated with gout would be better suited to this form of treatment than any other.

The nephropathies generally seen under the following head are degenerative in character, the bichromate, the bichloride, the phosphorous, the kidney of pregnancy, amyloid kidney, especially the type seen in long standing suppurating processes, particularly pulmonary tuberculosis, malaria and syphilis may come under this head; syphilis, however, may produce a productive nephritis on one occasion, and a degenerative on the other; then comes alcohol, claimed by most investigators to be a renal irritant, this I am confident will be borne out in clinical experience; lead I believe comes under the head of productive inflammation. No effort will be made to describe the pathology except to say that we meet with pathological conditions in the kidney in which involvement of the arteries seems to be the predominating feature, in another it is the interstitial tissue, in a third it is the parenchyma; the point I want to make is, we rarely see extensive involvement of any one of these structures without some involvement of the others.

It is contended by some investigators that interstitial nephritis (contracted kidney), is the result of a process of repair; for instance, the destruction of a glomerulus, which is followed by the usual proliferation and fibrosis, this seems to have been definitely demonstrated; another group is the result of soluble toxines circulating in the blood and diffusing into the kidney substance—this looks very reasonable, but when proof is called for we must go back to chemistry which is still in a doubtful state and we are obliged to depend more on our clinical observations than post-mortem.

A certain group of cases of contracted kidney have been definitely demonstrated to be the result of bacteria lodging in the capillaries of the glomeruli, passing through into the kidney substance, or accumulating in the tubules to be later followed by repair.

Two forms of embolic nephritis have been demonstrated, embolic purulent, due to streptococci, or staphylococci; second, embolic hemorrhagic (non-purulent) glomerulonephritis, due to embolism of single bacterial loops in the glomeruli by the streptococcus viridans of endocarditis lenta.

Finally, the arteriosclerotic kidney, in one instance seems a part of a general arteriosclerosis, in another there seems to be some evidence to support the soluble toxine theory of the bacteremias affecting the kidney vessels only; this brings us back to the theory advanced years ago by Gull and Sutton that arterio-capillary fibrosis is the earliest beginning of contracted kidney, certainly there is a marked difference in the histological structure of the interstitial and arteriosclerotic kidney.

If one will view the histo-pathology of kidney disease, he wonders where the man gained the courage to assert that the biology of the kidney is the all-important factor and histology plays no part. It is quite true we see clinically cases presenting all the phenomena of kidney disease in which post-mortem fails to bear us out; we must look here to circulatory, or chemical changes. I might mention in support of the bio-chemical theory the case presenting all the phenomena of nephritis, including albuminuria, casts, anemia general (so called debility which is in most instances an expression of ignorance); briefly speaking, the case looks like parenchymatous nephritis and under the administration of thyroid extract all evidence of nephritis disappears. After a review of the literature together with my brief clinical experience, I am convinced that we have both a chemical and histological factor to consider in dealing with kidney disease.

I shall not attempt to consider the surgical kidney or the kidney of circulatory disturbance.

#### A FEW REMARKS ON THE DIAGNOSES.

Time will not permit going into an exhaustive considera-

tion of the disease and its symptomatology, I shall mention what some one has called the red light signals, it is true many of them are the signals of advanced kidney disease in which we can offer but little hope to our patient.

1. *Headache*, a man past forty seeking relief from headaches who has formerly been free from such trouble, where we can exclude the infectious diseases, alcohol, brain tumor, abscess, or meningitis, we may guess nephritis and hit the case right eight times out of ten.

2. *Epistaxis* in a middle aged man or woman.

3. *Asthma* in a middle aged man for the first time, look out for the kidney.

4. *Rapidly failing vision*.

5. *Insomnia; vertigo*.

6. *So-called nervousness and irritability* coming on in a middle aged man.

7. *Marked anemia*.

8. *Loss of weight*.

9. *Dyspnoea*. 10. *Palpitation*. 11. *Precordial Distress*.

12. *Indigestion*. 13. *Nycturia, or Polyuria*. 14. *Edema* specially about the eyelids and hands, the edema that first appears about the ankles is generally the result of the over-worked heart; on the other hand, the ankles may be the seat of edema for the first time in acute nephritis.

*Chills* are mentioned as a first symptom in some cases, which I don't think ever occurs; on the other hand, the chill is the result of the infection producing the nephritis. *Pleurotic effusion and ascites* are of course late manifestations, at the same time many cases first present themselves for the relief of one or the other condition. With a heart apex in the sixth interspace and out with accentuation of the aortic second sound, with blood pressure of 160 or over (occasional or persistent), should demand the most rigid investigation of the kidney function, and I might state that a persistent high tension of 160 or over even without ventricular hypertrophy also should call for an investigation of kidney function. A simple hypertrophy of the heart does

not mean nephritis, but coupled with high tension that persists is very suggestive. Every symptom or sign that I have mentioned so far may occur as the result of other conditions than kidney disease. Lastly, when a man comes with a symptom you can't put a finger on, investigate the kidneys.

I desire to say a word about blood pressure readings; no case should be passed upon from blood pressure alone until several readings have been obtained on different dates. Not all cases of kidney disease are associated with high arterial tension; this is especially noticeable in amyloid disease and other forms of tubular nephritis. The highest blood pressure readings are seen in interstitial nephritis. A case came under my observation recently with a systolic pressure of 310 m.m., another 300 m.m. Experiments would indicate that injury to the tubules without injury to the glomeruli, a low blood pressure will follow, while injury to a number of glomeruli is attended with increased tension.

No amount of albumin or casts would induce me to make a diagnosis of nephritis in the absence of other clinical findings; neither would I be altered from a suspected nephritis in the absence of albumin or casts.

A urine of constantly low specific gravity together with an increase in the amount of fluid, especially if the amount voided at night is greater than the amount passed during the day should be regarded as strong proof of kidney change; add to that a blood pressure of 160 or over with a hypertrophied left ventricle and kidney disease of some degree is positive.

*Chemical and microscopic analysis* will not be taken up. Except one point, the formation of blood casts is almost proof positive of diseased glomeruli.

#### FUNCTIONAL TESTS.

Rowntree and Geraghty introduced the phenolsulphone-phthaline, or red test, as it is often called for measuring the functional efficiency of one or both kidneys. The test is simple and may be carried out by any one who has the

calorimeter and chemical. This is probably the most reliable function test we have.

As a result of experimental work done in Romberg's clinic they concluded that Na.Cl. and K.I. are excreted by the epithelium of the tubules—and that lactose and water are excreted by the glomeruli, in injury to the epithelium of these structures the administration of the above mentioned drugs may be of some value in determining the type of nephritis suspected.

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### THE MORPHINE HABIT AND VARIOUS CURES.

BY C. E. PATTERSON, M. D., GRAND RAPIDS, MICH.

The opium habit is growing very fast in this country—just how fast nobody knows, and the number of unfortunate addicts is increasing very rapidly. My opinion and that of others who have to do with drug addicts, is that a great part of the increase is due to the incautious use by doctors of "pain killers" of one sort or another, so that a drug habit is built up without he or the doctor knowing what is being done—until too late—until some fine man or woman has been turned by the one they trusted most into just one more helpless slave of a debasing habit, to gratify which they will lie, steal, beg, and in some instances, kill. Moral decay and physical damnation are the inevitable penalties.

There are many who have no idea what is meant by the term, "morphine habit." There are about as many who will know a little later if they do not now, and there are quite a number who know *now* what it means, and to their heart's sorrow. They are constantly praying in their innermost souls for some way of deliverance, and yet the prayers have not been answered.

To the first class I would say, do not for a moment think that *you* would be an exception to a rule, and not be caught by the wily stuff, provided the opportunity presented itself for you to be caught, for I can say to you, if it is administered to you for a certain length of time, in some cases for

a longer and some a shorter time, you will be one of the elect ones.

Do you know what that means?

I will give you an example that fell under my own observation, which is only one of many. A young man came to me for treatment for the morphine habit. His history ran like this: He became afflicted with sciatica. A physician was called. He used hypodermic injections of morphia to relieve pain, in other words, to blind himself to the true nature of the disease. As a matter of fact, the pain was eased as long as the effects of the drug lasted; and then, sad to say, there was the same pain again. Finally, the doctor left a hypodermic syringe with the patient and told him how to use it, also leaving him one hundred  $\frac{1}{4}$ -grain morphine tablets. When the tablets were gone, the patient, as a matter of course, called upon the doctor for more. The doctor asked "what he had done with all he had left him?" When he replied that "he had used all of them, and since they were gone he was in such horrible misery he could not possibly stand it, and must have more."

The doctor threw up his hands in "holy horror," and said: "My God, you have got the morphine habit!" The patient asked at once: "And *what is that?*"

The doctor said to him, "It is something that you cannot stop." Then the patient asked at once: "Well, where can I get help so I can?"

The answer came: "God only knows, I do not."

This is the story exactly as it was related to me by the patient himself, and the same thing is being repeated day after day, and year after year.

Occasionally there will be some old "granny woman" in a neighborhood who takes laudanum, and for every one who has an ill she advises the stuff, until there is a whole neighborhood of laudanum takers. Occasionally a neighborhood of Dover's powder takers. But, be it as it may, the results are the same. In a short time some are caught by the insidious drug and cannot live without it.



Sometimes, for some simple ailment, a neuralgia or a diarrhea, a prescription containing opium is given, the patient not knowing the effects of the opiate being left off, is of course made sick when it is discontinued and goes from doctor to doctor seeking assistance. Some doctors, I am sorry to say, not much wiser than the patient, pronounces it that great and popular disease *neurasthemia*, which in its true light is as much as saying, "I do not know a darned thing about your trouble."

Some doctors recognize the condition at once, and seek to make a reputation in that particular case by again giving some form of opiate, and as long as he can furnish the required dope daily, see what a reputation he has got in that particular case! But let the patient get out of the medicine, and oh, what trouble then! Aches, pains, chills, sweats, nervousness, insomnia, a thousand things he never thought of, *and then some*.

This is no exaggeration, and I am only too sorry to say, there are some men who call themselves doctors who at the present day are seeking to make a living by getting even boys addicted to these drugs, and then furnishing them with the needed drug at enormous profits. Such are the conditions as they exist now in Battle Creek, Mich., and a school is already formed in Grand Rapids, Mich., where a class of boys are being taught to snuff Heroin up the nose, which has an effect equal to a hypodermic injection of any opiate. I have already cured some of these cases and have been called upon for the relief of others, hence I know whereof I speak.

Of the second class of which I spoke at the beginning of this article and said the time was not far in the future when they would know what the morphine habit meant, will say: "They have never as yet tried to leave it off." I now advise them to read the story of Faust and Mephisto, and take it from me that Mephisto's fate is theirs.

To those of the third class who are seeking for assistance, and have thus far failed, I can truly say to them that they

are in a sad plight, and one that but few can conceive of. Many, and especially those who know nothing about it, will say, "Why, if you want to stop it, why don't you?"

To this I will say, if you had your full will power left that possibly you have had some time ago, it might be possible for you to stop. But, the first part of the disease is that you lose your *will power*. And then what can any one do with the *will power gone*? That is the exact condition in any drug habit. You soon find that out when you try, and then you begin to seek for a cure. You read over the advertisements in medical journals and think, of course, if an advertisement appears there it must be all right and everything done just as it says. But I can say to you, such is not the fact. I can point out advertisements in what are termed the leading medical journals of the United States, where I know the physician who is in charge, and is a part owner of the institution, is a morphine fiend himself. Just think of such a man being granted a certificate to even practice medicine, let alone offering to cure such cases. I see one institution advertises to cure any case, and guarantees to do it in three weeks. What a *lie*!

If one will but use common sense he knows the recuperative powers of all are not the same, and if to one is said, three weeks is your time, will not the majority have to suffer beyond endurance? And what is the result? Why, they can suffer it out, or double up and pay about three times what you agreed to in order to live through it. And then what? You come out a nervous wreck, and must immediately return again in order to live. And these same members of the profession claim there is no cure, because you were tried to be cured by some one *who only wanted your money*.

Then again there are some advertising to cure who have no idea of the remedy they are using at all, no more than you do; but buy the remedy already put up and give it to each and every one the same, regardless of idiosyncrasies and you live or die as the case may be. The principal thing

being that they get the price, cash down, \$125.00 or \$150.00, or otherwise as the case may be.

But now you ask, is there any cure? To which I say, yes. Decidedly yes, and twenty years ago I said to the profession the morphine habit could be cured without sickness or suffering and without depriving the patient of his freedom, and so stated through my advertisement; but with this qualification, that every case was an individual case, and would take time varying from four to ten weeks according to the case.

What then? Why, advertisements came out in abundance that they could cure without sickness or suffering in three days; and some even went so far as to say they could do it at your own home and no one be the wiser. Now I ask you of what account was my ad? Strangers did not know I was any less a liar than the others, hence seeing there is nothing in advertising what you can do for your fellowman, I can only say I will give your some pointers, so you need not be gulled by those who are simply seeking to get your cash and nothing more.

1. I will say, if you are addicted to any drug, you have got to have help to get free. You cannot just quit it, as many will advise you. 2. If one says he can cure you in three days or a week, he is not telling you the truth and only wants your money. 3. If one says he can cure you in three weeks, and without sickness or suffering, regardless of how long you have taken the drug or how much you take per day, keep your eye upon your pocketbook, for he has more interest in that than in you.

And now you ask, well, what shall I do anyway? 1. Get all the information you can from the one running the institute; as to whose treatment he uses, what he knows of its composition, etc. His price for a cure, and how he wants his money; and remember that many will say, you can deposit your money and if not cured you need not pay. But remember, they are on the safe side, for even if you were not cured, you would not stand a lawsuit and have the

world how you were a dope fiend for the price. No! They would keep the money just the same. 2. After you have all you can get from them, if it appears all right and fair in every way, go to the place and look on and see them treat some of their cases, or, in fact, all of them. If they will not let you see them in any or every stage of the game, *keep away from there*. If you find the patients suffering and confined to their rooms, from depression or low vitality, you can do much better than to stop there for a cure. They are simply taking it away, not curing. To simply remove the drug is not a cure in the drug habit.

Then last, but by no means least, see how they want their pay. If they insist on it all being cash, and cash down before they start, look out. Somebody has been deceiving you and you are going to find it out. But if your cash is paid in you are tied and will have to stay; hence, I say, pay for a week in advance, and then if they prove to you they are not doing as they promised, you have only lost the amount paid for a week instead of possibly all you have to get well on.

I have given, I hope, some pointers that if used may be the means of preventing loss of time, money and some suffering.

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### THE REMEDY.

BY W. FRANK GLENN, M. D., OF NASHVILLE, TENN.

In a former article in this journal, Feb. 1914, in which I claimed that masturbation, gonorrhea and syphilis produced more physical disease and mental suffering than all things else combined, I promised to write a subsequent article on the remedy. The very best means to prevent masturbation is first to have the infant circumcised and the proper time is when he is an infant. His father should raise him as a companion, so intimate that the boy puts all confidence in him and trusts and confides in him before everybody else. Then when the child is ten years old begin

to explain to him the evils of self abuse. Keep it well grounded into his mind that it is unnatural and will ruin his health.

In this way, by the time he reaches puberty and begins to feel his sexual desire, and other boys propose or suggest masturbation, he is well posted, forewarned, therefore forearmed and does not easily yield. I say commence at ten years, for the reason that in such cases prevention is our sheet anchor. It is well nigh impossible for a boy to stop masturbating after he has practiced it a while. In these cases an ounce of prevention is worth an hundred ounces of cure. As the boy reaches the age of puberty talk to him freely of gonorrhea and syphilis. Educate him thoroughly as to the nature of these diseases and their consequences. Show him examples, if possible, of the wrecks they have caused. Also impress upon your boy the necessity of refraining from seminal emissions in any form during the period that nature is changing him from a boy to a man. Impress upon him that nature needs all his nervous energy to accomplish a grand and great work, and that any such exhausting acts as sexual intercourse must impair and injure his ultimate perfect development.

I always use the example of a stock raiser and it convinces a young man at once. I ask him what he would think of a man who was a breeder of fine stock to allow a one or two year old stallion to serve mares? He sees the point at once and usually answers, "He would be a fool, for he would ruin his colt." The same law applies to human beings. If it ruins the colt and prevents his perfect development, so it ruins the boy and prevents his proper development into the complete and perfect man he should and would be.

In conclusion, I would say a word in regard to impotence, which is so alarmingly prevalent in men of today. It is not in accordance with nature's laws for normal man to be unable to perform the sexual act properly until he is a very old man. As he grows older instead of losing the power of erections, the interval of desire should become longer,

with no loss of the power of erection. Impotence is not a natural condition at all. It seems to trouble only man of all the animal kingdom. And why? Because almost universally boys begin masturbation when they are 12 to 15 years old; by the time they are 16 they are having intercourse as often as opportunity allows; many times having one or more cases of gonorrhea, so that by the time they are 21 years old instead of being robust, athletic young men, they are sexual wrecks. I often wonder why we devote so much care to the proper breeding and raising of our fine horses and cattle, and absolutely ignore our own human family. We see the brilliant results we achieve in the development of our live stock, why not develop the human race on the same lines. Whenever we regard marriage, begetting children and raising them properly, we will then be a truly healthy people, and crime will decrease more than by all the criminal laws that ever have been enacted or will be enforced.

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## ***Records, Recollections and Reminiscences.***

### **NOTICE.**

*The Association of Medical Officers of the Army and Navy of the Confederacy will hold its regular annual meeting at Jacksonville, Fla., May 6, 7 and 8, 1914, in conjunction with the Annual Reunion of United Confederate Veterans.*

*A good program is being arranged, and the Medical Profession of Jacksonville are making arrangements for our entertainment and comfort. All who served in the Army and Navy of the Confederate States as Surgeons, Assistant Surgeons, Acting Assistant Surgeons, Chaplains and Hospital Stewards, as well as Confederate Veterans and Sons of Confederate Veterans who are now Regular Doctors of Medicine are eligible to membership, and are most cordially*

*invited to attend and make this one of the best meetings ever held. Any essay, paper or clinical report will be gladly received, and ample time given for its consideration and discussion. The dues are only One Dollar, when in attendance, to meet the expenses of printing and postage.*

**STEPHEN H. RAGAN, M.D.,**

*Secretary and Treasurer,*

*621 East 31st St., Kansas City, Mo.*

**A. A. LYON, M. D., President,**

*Nashville, Tenn.*

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## **Editorial.**

### **VITAL STATISTICS IN THE STATE OF TENNESSEE.**

At last we have in full operation a Vital Statistics law—something that has long been needed, and from which we may confidently expect good results.

Overturning all the old theories that the birth rate for the State of Tennessee is very low and the death rate alarmingly high, the first monthly report of the State Bureau of Vital Statistics, issued by State Registrar H. H. Shoulders, M. D., shows that the birth rate is higher than almost any state in the union and the death rate is reassuringly low. This report is the first official statement of the "book-makers of humanity," and shows that the ninety-six counties of the state have an average birth rate of 22.6 per thousand and a death rate of only 14.3 per thousand citizens.

The federal census of 1910 declared that Tennessee has a death rate of about sixteen persons per thousand. This census, however, is not so complete as the work of the 1,200 local registrars of the State Board of Health scattered over every district of the state and local physicians think that the rate given by the State Registrar is correct.

The total number of deaths in all counties was 2,615 and the number of births was 4,016. No vital statistics have ever been collected in Tennessee before, hence there is no comparison to be made except with the government statistics and the records of other states. Ohio is generally conceded to be a state with almost perfect records as it is within the government's recognized registration area. The death rate in Ohio by last census was about twenty per thousand and Tennessee's fourteen per thousand compares more than favorably. The

death rate in certain states comprising over half of the population of the United States and recognized as having model vital statistics laws in 1912 was fifteen per thousand. A majority of the larger cities of the United States have death rates higher than sixteen. The city of London has the lowest death rate of any large city—fourteen.

The rate for Tennessee was found after taking the number of deaths for January and comparing them with the population. The rate may be even lower, as the mortality is high in January, and highest in the late winter.

Dr. H. H. Shoulders, State Registrar, has issued the following statement:

"It will be remembered that this was the first month's operation of the new vital statistics law. It was therefore new, and hardly possible for every person in the state to become thoroughly acquainted with their duties. In spite of this fact, however, I feel quite sure that fully 85 per cent of all births and deaths were recorded during January, and I have every reason to believe that the returns of each succeeding month will be better until 100 per cent is recorded.

"The department has been inclined to be lenient toward those who ignorantly violate the law. At the same time every effort is being made to inform people of the duties imposed by it, and, of course, the time will soon come when such leniency will not be justified.

"The co-operation of the medical profession has been good. Also, the undertakers, especially the regular members of the undertaking profession, have co-operated in a manner to be commended. The fact that the law applies to "persons who act as undertakers" has occasionally been overlooked. We believe, however, that these instances will rapidly become more seldom.

"The importance of the new law seems to be keenly appreciated by a very large majority of citizens. I feel, however, that it would not be amiss to again call attention to this phase of the subject. One can probably more strikingly get this question before the mind of the reader by asking this question, 'Did it ever occur to you to enumerate the different laws in effect in the state and nation with a certain age given as a basis of their enforcement?' For instance, the rights of suffrage and holding office, child labor laws, education laws, marriage laws, the administration of estates, etc. Many gross injustices have been done individuals on account of the lack of legal evidence of the age of some individual.

"Some states now require a birth certificate before a child is allowed to enter the free schools.

"Citizens of the United States who have come into the possession of the rights of citizenship by naturalization have on record testimony to the effect that they are citizens, while the persons who become



citizens of the United States by virtue of birth have not been in possession of such a record.

"The time is rapidly approaching, and is near at hand, when a person without a legal record of birth will be at a decided disadvantage. To summarize, one could justly say, that legal records of births and deaths, and the causes of death are almost indispensable in properly administering the affairs of government; in determining health conditions, and in properly directing health agencies.

"It is with pleasure that we acknowledge the value the press of the state has been in getting the subject before the people, and in crystallizing the interest in and the appreciation of the new law, which is now quite manifest."

#### TENNESSEE STATE MEDICAL ASSOCIATION.

The eighty-first annual meeting will be held in Memphis, Tenn., Tuesday, Wednesday and Thursday, April 7, 8 and 9, under the presidency of Dr. Wm. D. Haggard, of Nashville, Tenn.; the Vice-Presidents being Robt. Mann, of Memphis; E. M. Holmes, M. D., of Murfreesboro, and H. P. Larrimore, M. D., of Chattanooga, with Dr. Perry Bromberg, of Nashville, Secretary. The Memphis meetings have always been most enjoyable, and the coming session promises to be unusually interesting. Among the papers already promised are the following:

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| Inflammatory Stricture of Oesophagus .....   | Richmond McKinney, M.D., Memphis                                  |
| The Drug Habit in Tennessee, From the Viewpoint of an Enforcing Official .....   | Lucius P. Brown, M.D., Nashville                                  |
| The Cancer Problem .....   | Joseph C. Bloodgood, M.D., Baltimore, Md.                         |
| Arterio Sclerosis of the Cerebral Vessels.....   | John Phillips, M. D., Cleveland, O.                               |
| Demonstration of the Recently Discovered Micro-Organism of Hodgkin's Disease. (Corynebacterium Granulomates Maligni) ..... | William Litterer, M.D., Nashville                                 |
| Brain Abscess—Its Etiology, Diagnosis and Treatment.....   | H. O. Reik, M.D., Baltimore, Md.                                  |
| Chronic Appendicitis .....   | R. A. Barr, M.D., Nashville                                       |
| The Runabout Baby.....   | W. N. Lackey, M.D., Gallatin                                      |
| Bone Transplantation with Report of Case .....   | E. T. Newell, M.D., Chattanooga                                   |
| The Factors Necessary to Make Correct Surgical Diagnoses.  | Some Clinical Cases Illustrative. E. D. Newell, M.D., Chattanooga |
| Gastric Ulcer .....  | J. B. Thielen, M.D., Knoxville                                    |
| Food Intoxications of Childhood .....  | O. H. Hill, M.D., Knoxville                                       |

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| Report of Some Interesting Cases of Abdominal Surgery.....   | C. P. Fox, M.D., Greeneville                      |
| Tonsilectomy Versus Tonsilotomy.....   | C. B. Jones, M.D., Knoxville                      |
| When Should Gastric Ulcer Be Treated Surgically, and When<br>Medically? .....                          | Bertram W. Sippey, M.D., Chicago                  |
| Gall Bladder Diseases .....  | J. Hugh Carter, M.D., Memphis                     |
| Pudendal Hematocele.....   | J. M. Clack, M.D., Rockwood                       |
| Means of Resuscitation in Anaesthetic Fatalities.....  |   |
| .....  | E. M. Sanders, M.D., Nashville                    |
| Placenta Previa .....  | J. S. Campbell, M.D., Gordonsville                |
| Treatment of the Several Stages of Trachoma.....   |   |
| .....  | G. C. Savage, M.D., Nashville                     |
| Elliott Trephine Operation for Glaucoma.....   |   |
| .....  | Hilliard Wood, M.D., Nashville                    |
| Abortion, With Report of Case .....  | S. B. Duggan, M.D., Eagleville                    |
| Pneumonia .....  | D. A. Walker, M.D., Friendship                    |
| The Present Status of Blood Pressure...F. A. Jones, M.D., Memphis                                      |   |
| Sterilization .....  | S. M. Miller, M.D., Knoxville                     |
| Cancer of the Breast.....  | C. Holtzclaw, M.D., Chattanooga                   |
| The Significance and Mismanagement of Acute Abdominal Pain<br>.....                                    | L. Sheddian, M.D., Knoxville                      |
| The Serum Diagnosis of Gonorrheal Infections. (From the Lab-<br>oratories of the Board of Health)..... |   |
| .....  | R. L. Jones, M.D., I. Simons, M.D., Nashville     |
| The Necessity of the Wassermann Reaction in Controlling the<br>Treatment of Syphilis .....             | Herman Spitz, M.D., Nashville                     |
| Some Suggestions for a Change in the State Law Governing Ex-<br>pert Testimony .....                   | S. T. Rucker, M. D., Memphis                      |
| The Use of Hyoscin—Morphine and Novacaine as Anaesthetics<br>in Certain Selected Surgical Cases.....   |   |
| .....  | J. A. Crisler, M.D., E. J. Johnson, M.D., Memphis |
| Treatment of Amoebic Dysentery.....  | O. N. Bryan, M.D., Nashville                      |
| Treatment of Surgical Tuberculosis....   | W. A. Bryan, M.D., Nashville                      |

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**PLACING THE BLAME:**—At the present day much discussion is being heard on every side concerning the role of the intestinal canal in the causation and development of innumerable diseases. Once the liver was the chief malefactor, and a disordered liver if not blamed as the chief cause of pretty nearly every disease that "human flesh is heir too," was sure to be considered *particeps criminis*. As the indictment of the liver has been narrowed and its culpability brought within more specific limits, some other culprit has become necessary. How natural to turn to the liver's closest associate and known accom-

plice, the intestinal tract? Thus it is that the "human cesspool," as Sir Wm. Arbuthnot Lane has styled the intestinal canal, has had to stand accused of the etiologic crimes that the liver is no longer held accountable for.

But, as always happens, interest in the depravity of the new culprit has made the actual misdeeds of the old lose much of their importance. And so, gradually but none the less surely we have grown to ignore the crimes of the liver, until at last in our indignation at the fear of the intestines, we are almost ready to look upon the liver as "more sinned against than sinning," a victim of hasty and unwarranted accusation.

With this state of affairs, it is not surprising that the liver, wily and dangerous old offender that it is, has been allowed to perpetrate many outrages without being called to account. It is high time that medical men awoke to the fact that the liver is the same old trouble-maker it has always been, and needs watching as closely as ever.

Indeed, recent study of intestinal stasis and associated conditions has shown that the liver is often the main culprit even in this affection. The action of the bile in controlling intestinal putrefaction, arresting bacterial activity, promoting peristalsis, and assisting digestion makes it highly necessary that this important secretion be frequently interrogated as to its quantity, and any decrease in the bile output be given instant and vigorous attention.

This naturally raises the question, what is the best and most effective cholagogue? Many and various hepatic stimulants have been brought forward, but experience has shown that for promoting the functional activity of the liver nothing is superior to Chionia. This is an exceedingly effective preparation of *Chionanthus Virginica*. Administered in proper dosage it is a powerful hepatic stimulant, increasing the flow of bile, without, however, producing the marked and extreme catharsis which makes so many other hepatic remedies highly objectionable.

Clinical experience has shown that Chionia is, therefore, an exceedingly effective means of correcting intestinal disorders due to the shortcomings of the liver. In other words, its use can be relied upon to restore both offenders to good behavior.

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**DEPENDABLE THERAPEUTIC ACTION:**—It is freely conceded that the drugs or remedies that can be relied upon to produce definite and uniform physiologic effects are limited in number. The great majority of drugs depend so largely upon dosage, the conditions under which they are administered, and individual idiosyncrasy, that the effects that result are in most instances decidedly uncertain and only to be determined by actual test. There are a few drugs, however,

that have a well defined action, which the practitioner can be sure will follow with practical certainty. Among such definite acting medicaments the bromides are particularly noteworthy, for there are few drugs that are more positive, pronounced and definite in their power to modify or influence certain of the physiological conditions of the body. But clearly defined as is bromide action generally, even this has been found more or less subject to the purity and quality of the drugs employed.

It is recognition of this fact that leads so many discriminating physicians, when bromide-therapy is indicated, to turn to Peacock's Bromides, for experience has shown that this product is not only made from neutral bromide salts of the highest purity and quality, but compounded with a degree of care and skill that assures constant unvarying uniformity. It is not surprising, therefore, that Peacock's Bromides are so generally considered the ideal bromide preparation, as well as the most reliable sedative, anti-spasmodic and anti-convulsive. But it is not alone to therapeutic efficiency that the popularity of Peacock's Bromides is due. The more this combination has been used the more evident it has become that its purity and quality guarantee a gratifying freedom from the gastric disturbance and other symptoms of bromism that the ordinary bromide salts usually produce. Consequently in employing Peacock's Bromides, the painstaking practitioner not only insures the therapeutic results he desires, but saves his patient from disagreeable and annoying effects that he would be sure to suffer from inferior preparations of the bromides. It is difficult to understand, therefore, why Peacock's Bromides are so generally employed or prescribed when bromides are indicated?

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**"THE IDEAL LAXATIVE":**—The ideal laxative or purgative is one that will produce as near physiological evacuation of the bowels as is possible without exciting excessive peristalsis. Such a laxative will accomplish its results in a natural manner without upsetting the digestive functions, causing griping or pain, or inducing reactionary constipation. That the medical profession have in Prunoids a laxative that presents these qualifications to a superlative degree is evident to the thousands of physicians who are using it day in and day out. They have found that Prunoids can be relied upon to stimulate normal secretion, increase the fluid content of the feces when deficient, and thereby bring about free and thorough elimination without irritation of the intestinal mucosa.

Hence it is that Prunoids have proven so valuable in treating the constipation or bowel torpor encountered in such diseases as neurasthenia, jaundice, anæmia, rheumatism, gout, and all other affections where tonic stimulation of the functional activity of the bowels is so

essential. Indeed, Prunoids exert so pronounced an influence on the physiologic processes of the intestines that the effects are often prolonged for several days. Thus Prunoids do not induce the cathartic habit, as do so many other laxatives, but can be relied upon to accomplish results that rarely fail to persist for a long and gratifying period. Because of this very marked corrective action on the physiologic processes of the bowels, Prunoids have no superior as a remedy for the systematic treatment of chronic constipation of functional origin. It is no exaggeration to state, therefore, that no other remedy thus far offered for laxative or cathartic purposes produces more prompt, positive and permanent effects with such gratifying freedom from unpleasant or objectionable sequelæ.

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**TO LIGHTEN THE HEART'S BURDEN:**—In general practice few remedies are more commonly needed than a safe and reliable cardiac tonic. Not by any means a drug or remedy that will simply whip up and stimulate an organ that may already be laboring under a burden over heavy for capacity, but on the contrary, a remedy that will impart new strength to the heart and by giving it new power and tone relatively lighten the load it is carrying. Such a cardiac tonic is Cactina Pillets, a remedy that in the hands of thousands of competent physicians has been found one of the most valuable in the whole realm of therapeutics. In countless cases of cardiac disease it has been employed with the most positive and gratifying results.

It is especially indicated in all functional heart diseases, such as tachycardia, palpitation, feebleness; in the cardiac weakness and nervousness caused by excessive use of tobacco, tea, coffee or alcohol; to sustain the heart throughout many chronic and febrile diseases; to strengthen the heart of the convalescent; and for its support during the period of gestation. It has proven itself the safest cardiac tonic when the musculo-motor action of the heart requires strengthening or guarding and seems to promote the nutrition of the whole organ through its effect on the local circulation. In consequence there is ample justification for the statement so often made in describing Cactina Pillets that this remedy is a persuasive cardiac tonic, not a therapeutic lash.

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**NASAL AND AURAL INFECTIONS:**—There is a growing impression among specialists in those diseases that catarrhs of the nose and ear, especially chronic discharges, are commonly the results of mixed infections. If this view is correct, is it not a fair inference that Mixed Infection Phylacogen may provide a solution to one of the most perplexing problems that the profession has been called upon to solve? There is ground for such conclusion. Certain it is that the Phylacogen

referred to has produced some very satisfactory results in numerous cases which had failed to respond to conventional modes of treatment. The writer recalls several cases of this character that have been reported in the medical press during the last year and a half.

An open letter to the profession which is appearing in leading medical journals over the signature of Parke, Davis & Co., adduces additional evidence of the value of Mixed Infection Phylacogen in stubborn nasal and aural infections. This communication, which bears the title, "A Letter to Medical Men," cites some cases that appear strongly confirmatory of the mixed-infection theory of etiology. All of the reports are interesting. At least one of them is remarkable: it deals with a housemaid who suffered almost total deafness in one ear for twenty-one years and whose hearing in the defective organ was practically restored after eleven injections of Mixed Infection Phylacogen.

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**COMMON SENSE IN MANAGING DIGESTIVE DISORDERS:**—The artificial digestives have their place in modern therapy, but their use should always be tempered with sound judgment. Otherwise conditions we seek to correct are very apt to be aggravated. Undoubtedly we have placed too much reliance on the digestants and as a consequence have often done more harm than good. As one physician states in referring to the digestive function: "Nature should be gently assisted in the human economy. If we persist in doing its work, like the lazy man, it soon depends on that assistance. This is true as to the action of the liver, stomach, intestines, as well as all functions of the human anatomy. How often do we meet with individuals who are habitually dosing themselves whenever an action of the liver or bowels is required, and others who require a dose of pepsin or one or the many artificial digestives after each meal. This is all wrong. The functional activity of the entire process of digestion should be encouraged, and any remedy that will specifically stimulate these functions to their healthy action is of greater service in digestion than pepsin. Seng, a remedy that has a well defined secretory action on the glands and mucous membranes of the stomach and intestines, thus compelling the secretion of "Nature's own digestive fluids, is the modern treatment of dyspepsia."

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**THE PNEUMONIA CONVALESCENT:**—While the course and progress of acute lobar pneumonia is short, sharp and decisive, the impression made upon the general vitality is often profound, and apparently out of proportion to the duration of the disease. Even the robust, sthenic patient is likely to emerge from the defervescent period with an embarrassed heart and general prostration. In such cases the convales-

cent should be closely watched and the heart and general vitality should be strengthened and supported, and this is especially true as applied to the patient who was more or less devitalized before the invasion of the disease. For the purpose indicated, strychnia is a veritable prop upon which the embarrassed heart and circulation can lean for strength and support. As a general revitalizing agent is also needed at this time, it is an excellent plan to order Pepto-Mangan (Gude), to which should be added the appropriate dose of strychnia, according to age, condition and indications. As a general tonic and bracer to the circulation, nervous system and the organism generally, this combination cannot be surpassed.

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LIPPINCOTT'S MAGAZINE—*Special Features for April 1914.*—The April Novelette is a delicious romance of the French Court in the days when the fascinating "Du Barry" reigned supreme, and is called "The Presentation," by H. De Vere Stacpoole. In the list of shorter fiction there will be "The Breaking of Carmela," by Mary Heaton Vorse; "An Agacella Or," by Rex. T. Stout; "The Amazon," by Mary Brecht Pulver. In Lucy Stone Terrill's "Amo Te," there is food for thought about our boys and girls. "The Revenge of Rats Keeler," by W. F. French, a graphic human instance of a man who was "in wrong" with the boss—and therefore with the police. Letters of Horace Howard Furness, edited by Francis Newton Thorpe, show that of all the writer's graces he had none more perfect than his art in writing familiar letters. "The Aeroplane and War," by E. Adrien Von Muffling, will discuss this timely subject clearly with special reference to American interests. Lippincott's policy of *quality* will shine in every department, including "Walnuts and Wine," "Ways of the Hour," Finance, Automobile.

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SAMUEL D. GROSS PRIZE.—The Philadelphia Academy of Surgery announces that the Samuel D. Gross Prize of \$1,500 will be awarded next year, and that essays in competition for it will be received until January 1, 1915. The conditions made by the giver of the prize are that it "shall be awarded every five years to the writer of the best original essay not exceeding 150 printed pages, octavo, in length, illustrative of some subject in surgical pathology or surgical practice, founded upon original investigations, the candidates for the prize to be American citizens." The essays, which must be by a single author and in English, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 South 22d Street, Philadelphia," on or before January 1, 1915. Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and

containing the name and address of the writer. The committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

**CYSTOGEN-APERIENT (GRANULAR EFFERVESCENT SALT):**—This product is an excellent example of that type of worthy proprietary medicines which cannot be extemporaneously compounded and can be manufactured only by skilled chemists with the full facilities of a large laboratory. The formula has always been open to the profession and the advertising has been free from the objections so often urged against proprietary medicines. It is not presented as a saline purgative, but as a rational therapeutic aid wherever treatment is based on *elimination* of waste products. The formula shows that each teaspoonful contains:

|                                   |          |
|-----------------------------------|----------|
| Cystogen ( $C_9H_{12}N_4$ ) ..... | gr. v.   |
| Sod. Phosphate .....              | gr. xxv. |
| Sod. Tartrate .....               | gr. xxx. |

Cystogen-Aperient, it will be seen from the above, combines the laxative and tonic properties of sodium phosphate and tartrate with the urinary-antiseptic and solvent action of cystogen.

**A PIONEER SANITARIAN:**—Dr. Stephen Smith, who was one of the first in America to agitate for sanitation and other laws for the improvement of the public health, was born in Onondaga County, New York, February 19, 1823. A decade before the commencement of the Civil War he completed his medical education and began the practice of his profession in New York City. After serving as a volunteer surgeon in the war, Dr. Smith, in 1865, made an exhaustive investigation into the sanitary condition of New York, and from 1868 to 1875 he was commissioner of health of New York City. He was the founder and first President of the American Public Health Association, and the creator of both the Health Department of New York State and the New York State Lunacy Commission, and the author of the law for the State care of the insane. In 1894, when more than eighty years of age, Dr. Smith went to Paris as representative of the United States at the International Sanitary Conference. He has just celebrated his ninety-first birthday.

**RECOVERING FROM PNEUMONIA:**—To hasten convalescence from pneumonia the physician will find a substantial aid in Cord. Ext. Ol. Morrhuæ Comp. (Hagee). Its distinctive service in inflammations of the air passages and the function it serves as a nutritive, entitle it to first choice as a reconstructive product, and for those reasons it is the agent *par excellence* in convalescence from pneumonia.



**DANGER DUE TO SUBSTITUTION:**—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of “just as good” than the scientifically standardized Eucalyptol. The more recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No “Just as Good” allowed.

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**IN HONOR OF VETERAN PHYSICIANS:**—Dr. Gustavus B. Thornton, Memphis, was given a handsome gold-headed cane and a shower of flowers by his professional friends, February 1, on the occasion of his seventy-ninth birthday anniversary. On February 5, Dr. Richard Brook Maury was given a dinner in celebration of his eightieth birthday by forty brother physicians, at which he was presented with a silver loving cup and an elaborate birthday cake. Dr. Frank Jones presided as toastmaster. Dr. Gustavus B. Thornton spoke on “Dr. Maury, the Physician,” Dr. Benjamin F. Turner on “Dr. Maury as a Teacher,” Bolton Smith on “Dr. Maury, the Citizen,” and Bishop Gaylor on “Dr. Maury, the Churchman.”

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**AS AN ELIMINANT:**—We think that all who have made a test of the action of tongaline, either in the acute stage of grippe, or in the period of convalescence marked by an extra nervous disturbance so often present, will be convinced that the remedy has a direct and marked influence for good. There is not an organ or function of the body which may not be so impaired or affected by grippe as to lead to a permanent disability, but on account of the extraordinary eliminative action of tongaline, this rarely occurs if that remedy is used, since there is then no opportunity for such an accumulation of the poison as to induce permanent harm.

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**CONGRATULATIONS:**—At a recent meeting of the Tri-State Medical Society of the Carolinas and Virginia, Dr. E. C. Register, who has been editor of the well-known *Charlotte Medical Journal* for twenty-five years, was elected President.

**THE CONSERVATION OF NERVOUS ENERGY:**—In the management of that character of nervous cases in which there is a great waste of nervous energy *Pasadyne* (Daniel) will be found a thoroughly efficient agent. Not only efficient, but agreeable as well, for one of the most marked advantages of *Pasadyne* (Daniel) is its freedom from evil or disagreeable consequences. As is generally known *Pasadyne* (Daniel) is the distinctive name of a preparation of *Passiflora Incarnata* that has met the most exacting clinical demands of a generation of medical men. A sample bottle of *Pasadyne* may be had by addressing the Laboratory of John B. Daniel, Atlanta, Ga.

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**THE "ENERGY SPARER":**—*Panopepton* amkes no demand on energy other than that concerned in metabolism. The energy required for the conversion of the food itself has already been applied in the laboratory, in the "silent trasmutations" (Sir Wm. Roberts) of the basic foods, beef and wheat, into perfectly assimilable and diffusible substance. Thus, without taxing energy for digestion, *Panopepton* contributes to the means by which both digestion and energy are recruited. And it leaves no indigestion, inassimilable, malefic residue. In *practice Panopepton* is constantly demonstrating its "ability for good service." *Use it and see for yourself.*

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**STEADILY UPWARD:**—For more than *two decades* there has been a steady, yearly increase in demand, among the *physicians of the world* for the original, ethically prepared, and ethically advertised *Antiphlogistine* in all inflammatory conditions (deep or superficial); painful swellings, bruises, boils, carbuncles, cellulitis, *wherever and whenever* a safe, reliable heart-retaining antiseptic, hygroscopic application for *external use* is required. It is an ethical preparation prescribed by ethical physicians all over the world.

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**MORE THAN FORTY YEARS AGO** our attention was first called to the *Elixir Iodo-Bromide of Calcium Comp.*—*Tilden*, as a valuable vegetable alternative, and we have been using it with the greatest satisfaction since then in a number of cases. Recently two cases of Recurrent Furunculosis that had resisted all other measures, including vaccinal sera, yielded promptly to this old, time-honored and reliable combination. In conjunction with Hydrarg Bi-Chlor, we have also proved it very effective in venereal infection.

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**DISCRIMINATION IN CHOOSING AN ANODYNE:**—The exercising of more than ordinary care in choosing an anodyne, particularly in the case of women and children, is quite essential. This is all the more

so when it is remembered what distressing after-effects follow the use of some anodynes. The fact that careful practitioners are partial to Papine (Battle) and continue to use it year after year indicates its superior features. Papine (Battle) affords a maximum of anodyne properties with a minimum of evil effects.

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## Selections

**THE CONTROL OF CANCER:**—With the advance of civilization cancer seems to be apparently on the increase. This increase is apparently a penalty of civilization. As yet in deep-seated malignancy there is only one treatment—surgical. There is no authentic report of a single visceral cancer having been cured by medicinal means. Whether this increase is real or only apparent is a difficult problem to prove, as better means of diagnostication may have played a part in directing attention to the greater prevalency. Again, the lengthening of the span of life may also be concerned to some extent in the apparent greater frequency. At any rate, the profession now thoroughly realizes that no race or age is immune; that certain periods are more dangerous than others; that if the malady is to be conquered it must be gotten at early, or, better still, in the precancerous stage, by which is meant the removal of growths from those organs particularly predisposed to cancer before malignant degeneration has set in. Writing along these lines, Dr. Joseph C. Bloodgood, in a paper read before the Clinical Congress of Surgeons of North America, Chicago, November 13, 1913, sounds the clarion note: To improve the results, to increase the number of cures of cancer, there are two factors over which we have control—the duration of the disease and the treatment. Long experience and investigation seem to show that cancer never begins in healthy tissue. There is always a pre-existing local defect which is benign and in which later there may be a cancerous development. When this previous defect is situated on the skin, beneath the skin or on the mucous membrane of the

lip, tongue and mouth, everyone is aware of the little lesion. These previous defects or local lesions in which cancer may develop may be called precancerous. The complete removal or complete healing of these precancerous lesions will, in Dr. Bloodgood's experience, accomplish a cure in 100 per cent of cases; that is, none of these people will die of cancer from a growth in the situation from which the precancerous growth has been removed. Such cases cannot be called actually cured of cancer, but we can be quite certain that treatment prevents cancer in many, if not all, of the patients treated. Little tumors which have been present since birth, or noticed later in life, may occur on the skin as warts, moles or nevi, any one of which is subject to cancerous degeneration. A wound, burn or some injury or disease may destroy the skin or mucous membrane, and, not healing, a chronic ulcer result. The wound never heals, or heals badly and then breaks down; the open sore remains for weeks, months or years. At any time a cancer may develop in such ulcer. Cancer may result from some form of chronic irritation of the skin and mucous membrane which does not destroy it, as chronic inflammation about bad teeth. All of these precancerous lesions of the skin and mucous membrane are recognized by their hosts the moment they begin. Delay in treatment is due to ignorance, fear or skepticism. As previously stated, proper treatment instituted in the precancerous stage should result in 100 per cent of cures. And treatment which does not completely remove the little tumor or accomplish perfect healing of the ulcer is more dangerous than no treatment at all. The author's investigations over a period of twenty years with almost 3,000 cases demonstrates that in cancer in accessible regions good surgery in the precancerous stage should accomplish 100 per cent of cures, because this early recognition and treatment leads to the complete eradication of the precancerous lesion still benign, or to the recognition of the earliest stage of cancer by the microscopic study of the piece excised, and thus leads to the

radical operation indicated at a period most favorable for the cure of cancer. The above dictum also applies to precancerous lesions of the internal viscera, though with the present means at our command these are harder to detect. Certainly here their early eradication would go a long way toward the reduction of cancer incident to the abdominal viscera.

Though much is known about cancer, still much remains to be learned, and until we are better informed concerning the etiology, the teachings of Dr. Bloodgood are certainly sound. Here, as in other lines of endeavor, an ounce of prevention is better than a pound of cure. A bad-looking mole removed, perhaps a cancer victim saved. Briefly, the only hope the profession has at present of reducing the prevalence of cancer is to educate the populace to the possible danger lurking in lesions prone to undergo cancerous degeneration and advise early and complete eradication. This is Dr. Bloodgood's lesson.—*Maryland Medical Journal*.

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**RADIUM IN THE TREATMENT OF CANCER:**—An excellent article on radium appears in the December number of the *American Review of Reviews*, consisting of an interview with Dr. Howard Kelly, who is the President of the newly established National Radium Institute. Dr. Kelly recapitulates as follows:

1. Radium is not a specific cure for cancer. It does not take the place of surgery; it is another help to it. Cancer patients, in the early stages, as before, must submit to operation.
2. It is most useful in cancers on the outside of the body. In many of these cases it effects cures without pain and without deformity.
3. It is especially useful in connection with surgery, when it can be used to destroy vestiges of the tumor which the knife may have left behind. It can also be used to good purpose in irradiating the cancerous area preceding operation.

4. There are certain structures which cannot be operated on—excised or seriously invaded—without disastrous consequences. Radium has cured inoperable cases of this kind. It is like a microscope knife which goes after the individual cell.

5. It is especially valuable in cancer of the uterus. Permanent cures even of inoperable cases have apparently been obtained.

6. It is effective only when there is no wide dissemination of the disease.

What makes radium particularly useful is the simplicity of the technique. It does not necessitate the use of an anesthetic, and its administration causes no pain and almost no discomfort. The radium salt is kept inclosed in a fine platinum tube about an inch long. This tube is again encased with lead, which is used because it acts as a filter, keeping in the alpha and beta rays—which are more destructive to normal tissue—while letting the gamma rays slip through. The tube, further screened with some soft substance, is then laid in immediate proximity to the diseased part; if necessary, it can be attached by surgical plaster; in some cases incisions into the diseased part may be made as recommended by Dr. Abbe. Its action upon the cancerous tissue begins at once; the application lasts from 4 to 6 to 24 hours. Sometimes in a month or six weeks the growth vanishes. The radium so used can be used over and over again. Most readers are now familiar with the much-heralded “miracle of radium”—the mysterious substance that apparently defies all the known laws of the material universe, in that it keeps giving off matter without diminishing its own bulk. Every little particle of radium has been giving off its rays for thousands of years, and will continue to be active for two thousand years longer, when it will have just half its present weight and just the same capacity for throwing out its rays that it has now, only lessened amount, so that a little bit of radium now in use

may be inherited by generation after generation of enterprising surgeons.

NOTE.—The following Associated Press dispatch was sent out December 29: "Dr. Abraham Jacobi announced at the meeting of the Eastern Medical Society in Buffalo, that he himself presented an instance of a cure effected by radium. Seven years ago an epithelioma appeared upon his nose and for two years gave him a great deal of worry. He was subjected to radium treatment and a prompt cure resulted. This was accomplished by three applications—one of three minutes, one of four minutes and one of seven minutes—at short intervals."—*Medical Herald*.

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TREATMENT OF PREMATURE BALDNESS:—G. T. Jackson and C. W. McMurtry state that by proper care of the hair and scalp much may be done to prevent the fall of hair. The maintenance of the fullest vigor of the body is an important means of preserving the hair. In alopecia præmatura idiopathica in which there is no local disease of the scalp one must rely upon stimulation of the circulation in the hope of bringing a richer supply of blood to the hair papillæ. Massage of the scalp should be done frequently and thoroughly. If done by an attendant the massage should be performed for twenty to thirty minutes three or more times a week. The masseur should use an emollient such as "sulphur cream":

- R White wax, 6 drams.
- Petroleum oil, 5 ounces.
- Rose water, 2½ ounces.
- Sodium borate, 36 grains.
- Precipitated sulphur, 7 drams.

Deep brushing with a long bristled brush for a few minutes night and morning is an easy and effectual means of bringing an increased flow of blood to the scalp. Wire brushes are of doubtful value. Electricity and vibratory massage have their advocates. The only medicinal agent

that seems to exert a specific action is pilocarpine. A favorite formula is:

R Pilocarpine muriate, 20 grains.

Cologne water, 4 ounces.

Rose water.

Absolute alcohol, aa ad 8 ounces.

This to be well rubbed in night and morning. Cottle speaks highly of the following lotion:

R Acetic acid, 4 drams.

Powdered borax, 1 dram.

Glycerin, 3 drams.

Alcohol, 4 drams.

Rose water, ad 8 ounces.

Tar in some form is said to promote the growth of the hair. One of Sabouraud's formulæ is:

R Oil of cade,

Lanolin,

Vaseline, aa 2½ drams.

Yellow oxide of mercury, 15 grains.

In alopecia pityrodes in which there is always some scaling of the scalp, which in its minor form is recognized as dandruff, and which may be so abundant as to produce thick, greasy scales, one should first seek to cure the seborrheal condition. If there is abundant scaling of the scalp olive oil or sweet almond oil with 2 per cent of salicylic acid should be well rubbed into the scalp at night and an oiled silk or rubber cap put on. On the following morning the scalp should be washed with soap and water.

This should be repeated for several nights until the scalp is clean. The authors prefer cleansing of the scalp with the use of sulphur cream. Sabouraud recommends the following:

R Alcohol, 90 per cent, 8 drams.

Spirit of lavender,

Spirit of ether, aa, 6½ drams.

Pilocarpine muriate, 4 grains.

Water, sufficient to dissolve the above.



Ammonia water, 1 dram.

The four drugs that are of most use in alopecia pityrodes are sulphur, resorcin, tar, and mercury, and the greatest of these is sulphur.—*"Diseases of the Hair"*—*Medical Record*.

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GENERAL CARE OF THE INSANE:—In speaking of the general care of the insane, it is not necessary to say that all cases should be removed from almshouses and jails and placed in regular hospitals for the insane. It is also unnecessary to add that the feeble-minded and alcoholics should be separated from the insane and cared for by the state. State care seems to offer a better method of care than county care or county and state care combined.

The general care of the insane may be discussed under two broad headings—home care and institutional care. The indications for home care are dementia præcox in its early stages, mild forms of the manic depressive group, and harmless senile dement. The contra-indications for home care are suicidal and homicidal cases, paretics, paranoiacs, violent cases, terminal dement, feeble-minded insane and the epileptic insane. The requisites for home care are, a skilled physician, well versed in the subject of psychiatry, a graduate nurse of a hospital for the insane, proper home environments, carefully regulated and systematized employment and recreation, a moderate amount of privacy, a moderate amount of exercise, considerable regulation of hours of rest, and restriction of travel.

Institutional treatment may be divided into private and state or county institutional treatment. From a curative, as well as from a financial standpoint of the relatives, those cases in which private hospital care is indicated are, mild confusions, mild manic depressives, exhaustion cases and those belonging to the minor psychoses. These cases offer a better prognosis as to cure and run a comparatively short course. This particular class of cases offers the best argument for psychopathic hospitals, under state supervision,

for the care and treatment of the indigent insane, as many of these cases, under short periods of treatment, would get well and would never bear the stigma of having been committed to a hospital for the insane, and would not necessarily associate with the raving maniacs, hopeless cripples, the dement, and so on. Those cases which require custodial care in state hospitals are, suicides, homicides, advanced præcox cases, paranoiacs, paretics, terminal dement, the epileptic and feeble-minded insane. Most state institutions have their acute receiving section for excited cases, with their hydro-therapeutic plant in close communication with same. They have a receiving section for the mildly depressed cases, as well as a receiving section for the infirm and sick cases, in which are the usual surgical dressing rooms and necessary equipment for the care of the sick. A further classification is made pending the patients' recovery or the chronicity of the attack. The recoverable cases usually pass to the quiet sections, then to the convalescing buildings or farm colonies. Chronic cases are distributed to the refractory section, unclean sections, mildly chronic sections, epileptic sections and farm groups.

The greatest principles involved in the treatment of the insane are, the rest and hydrotherapeutic treatment for the manic depressive group, employment and labor in its various forms, arts and crafts, shop, etc., for its mild chronic and convalescent group. Institutions conducted along these lines seem to offer the best advantages from the standpoint of care, economy and the ultimate recovery of the patient.—*Charlotte Medical Journal*.

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**TREATMENT OF ENURESIS:**—Simpson (*Edinburgh Medical Journal*) says that in the treatment of enuresis a change of scene will often prove beneficial. Special attention should be paid to the habits of the child. Thus, if the enuresis is most evident during the first few hours of sleep it should be seen that the child urinates just before going to bed and should then be awakened about two hours later and the

bladder again evacuated. This is especially important where the urine is alkaline. Regular habits of urinating throughout the day should be established, and he should be encouraged to retain the urine as long as possible. Tea and coffee should never be given, and the last meal and fluid should be at least an hour before bedtime. Tilting of the bed, Simpson does not consider to be of any value, but plenty of fresh air and a fair amount of exercise are important.

Drug treatment averages three to six months, as the condition has become more or less a fixed habit before it is regarded in a serious way by the parents. Belladonna, potassium citrate and hexamethylenamine are three drugs of undoubted efficacy, but a careful examination of the urine is to be made before either is employed. In cases where the urine is normal, or at least presents no abnormal features, and the incontinence is the result of some debilitating condition, tonics should be first administered, and then belladonna, commencing with ten minims of the tincture two or three times a day and gradually increasing to 20 to 25 minims. In most cases 15 minims will be found the maximum dose necessary to be employed. In cases where the urine is extremely acid, the acidity may be reduced by ten grains of potassium citrate thrice daily, and when the acidity has been overcome, the belladonna may be begun. If the general health is not good, two or three minims of liquor strychnæ may be added. Where the urine is alkaline dieting is of first importance, all carbohydrates being prohibited. If it is very alkaline, acid sodium phosphate may be given, and then, when the alkalinity has been reduced, belladonna as above. Where it is established bacilli are in the urine, if this is very acid, reduce with potassium acetate and administer hexamethylenamine 5 to 10 grain doses thrice daily. In mixed infection, vaccines may be used to advantage. Ergot should be tried if belladonna fails. If the child is backward mentally, thyroid extract may be tried 5 grains daily. If the child is highly

nervous and has disturbed sleep, 5 to 10 grains of potassium bromide may be added to the evening dose of belladonna.

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CUTANEOUS EPITHELIOMATA CURED BY SUNLIGHT:—The employment of sunlight focussed upon a skin cancer is described by Seebye (*N. Y. Med. Jour.*) as a cheap and yet efficient means of treatment. He says that for a number of years he has found this treatment especially successful in those obstinate ulcerative patches on the face or nose that repeatedly shed their scabs only to leave a raw and bleeding base, which never heals under ointments, powders or other local treatment, and which recurs with ever-increasing extent of growth, year after year, producing great disfigurement of features and worry to the mind. These growths are usually of moderate size, and always malignant.

The technic he uses is, to focus the clear sunlight directly on the sore for ten or fifteen minutes at a sitting. If a scab is present, he concentrates the rays on it till the patient complains of the burning, then quickly lengthens the focus so as to cover with the rays an area an eighth of an inch or more beyond the scab. Every few minutes he induces the burning again for a second, not to the degree of cauterization, and then more mildly. After about ten minutes' treatment, the scab will look darker, and during the next few days will become more prominent and loosened. Treatment should be given every day or two till the scab may be easily removed, leaving a raw, bleeding ulcer. Then is the time for a powerful application of the rays. First apply a few granules of cocaine in powder directly to the raw sore, and, after three or four minutes, a treatment so strong as almost to cauterize the base of the ulcer may be borne, to be alternated with continued milder applications for about fifteen minutes. This will either kill the irritating germs responsible for the growth, or destroy the low grade cells whose vitality can not resist the intense

heat or the immensely rapid ethereal vibrations set up by the chemical light rays. Milder treatments thereafter, at intervals of three to seven days, through the scabs or immediately after their shedding, will usually complete the cure within three to six weeks. The scabs gradually become thinner and more superficial, and the sore bleeds less after their removal. At last a healthy, permanently normal skin is left with scarcely a faint scar to show its former location. Rarely are more than eight to fifteen treatments required to get these satisfactory results. Any ordinary dusting powder, such as talcum, boric acid, or bismuth may be sprinkled over the scab at any time for cosmetic purposes or to dry a moist surface.

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**A NEW USE FOR ETHER:**—French surgeons are reporting excellent results from the use of ether in the peritoneal cavity. This method of cleansing and dressing the peritoneal cavity may seem of doubtful and even dangerous utility yet it is being used in five of the leading hospitals of Paris as a routine measure in all laparotomies with excellent results. Dr. DeTarnowsky (*Jour. A. M. A.*), after observing its use in the French Clinics has adopted it in his abdominal operations and reports gratifying results. He states that it is a local disinfectant and that it is harmless as regards degenerative action on the cells. He reports thirty cases treated by his method, including three cases of gangrenous appendicitis with generalized peritonitis, four cases of localized abdominal peritonitis and two cases of plevic peritonitis. In 75 per cent the postoperative pain was lessened and there was no mortality. The bactericidal action was very apparent. His technic is as follows:

“After removal of pathologic tissue free pus is carefully wiped out; then ether is freely poured into the abdomen and is allowed to come in contact with all the viscera in a case of general peritonitis. The viscera are literally washed in ether, hence the term “lavage” adopted by the

French. As much as a quart of ether has been thus used. After having remained in contact with the abdominal organs for from two to five minutes, it is mopped out by means of gauze sponges and the abdomen is closed with one small drain. In circumscribed peritonitis the pus cavity, having been wiped out, is filled with ether and the abdomen is closed without drainage. In pelvic peritonitis, ether soaked sponges are applied to all involved surfaces, and then two ounces of ether are poured into Douglas' pouch and the abdomen is closed without drainage. The immediate effect of ether, thus applied, is to cause a momentary capillary contraction, followed by hyperemia of the viscera. There is a moderate formation of carbon dioxid in the abdomen, evinced by a bubbling sound and the escape of bubbles from the surface of the ether. Ether is slowly absorbed by the serosa; that is proved by the fact that no change in the anesthesia of the patient has been reported to date."—*Medical Sentinel*.

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**CALOMEL AS A BABY MEDICINE:**—Mercury is, in my opinion and experience, the best medicine we possess. Ordinarily calomel is the best form by which to administer it. In some types of bowel trouble, especially those accompanied by a diarrhea, mercury and chalk is an excellent combination. In coughs and bronchial irritations calomel and ipecac is one of the best combinations that can be given.

There are few baby ailments in which calomel, judiciously administered, will not accomplish certain good results. It acts upon every secreting gland and cell, and is the most valuable cholagogue we possess, although acting indirectly as about all such agencies do. Calomel is, therefore, a most valuable intestinal antiseptic and is indicated in the majority of gastro-intestinal affections.

Occasionally a child manifests an idiosyncrasy for calomel and may manifest the same by over-stimulation of the intestines, resulting in griping, tenesmus, etc. This is rare, however. As a general rule, children tolerate relatively

large doses, the reason being that the young child's secretions are more copious and mobile than those of the adult. Much of it is "lost" before it can exert any physiological effects. Young children are not subject to ptyalism and I have seldom had a child under the age of ten to manifest sore gums after taking the mild chloride of mercury.

The 1-10 grain tablets of calomel and wintergreen are all right for infants. They are also good for children a year old or more, provided enough are taken. I give it to children a year old in one grain doses and seldom in less than  $\frac{1}{2}$  grain doses. Having for twenty years depended on this drug as my one to "swear by" in babies, I have never had reason to "swear at" it. I have learned to give children calomel in free doses and I have never yet seen untoward results from my method of administration.

When it is desired to impress the young child's system with mercury, as in glandular affections, it is well to administer calomel in small doses, say 1-10 grain. I can't see how any smaller doses can exert any benign therapeutic effects. Calomel and castor oil are the best baby medicines, although like babies themselves, they are old-fashioned.—*W. T. M., in Charlotte Medical Journal.*

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URINARY ANTISEPTICS:—Jordan, in the *British Medical Journal*, says that, according to his researches, the acidity of the urine is readily increased to an extent of more than double the normal by acid sodium phosphate, and to a considerably less extent by benzoates. With large doses of citrates it is easily rendered alkaline. Putrefaction of the urine and the growth of the staphylococcus is aided by alkalinity and delayed by acidity in proportion to the amount thereof. The reverse is the case with *B. coli*, but only to a small extent; its growth in both acid and alkaline urines is quite luxuriant. Hexamethylenetetramine is not itself antiseptic, but acts by producing formaldehyde in the urine. This only takes place in acid urine, and the drug is inert in alkaline urine. The degree of antiseptic power is pro-

portionate to the acidity, and where this is normal or lighter the drug is far the most efficient of all the urinary antiseptics. Sandalwood oil is a bad general antiseptic, but appears to have a specific action on the staphylococcus which may apply to cocci generally. It is of some use in alkaline urine. Benzoic and salicylic acids are very similar in action. Both are fairly efficient antiseptics in the urine, but are of very little use in alkaline urine. Boric acid is an efficient antiseptic. Its action is unaffected by alkalinity, so that it is the most efficient drug in alkaline urine. Uva ursi is quite a good antiseptic. Its action is certainly not due chiefly to the arbutin it contains. The following are legitimate practical deductions: The use of urotropin (together with acid sodium phosphate, which should always be given with it) as a prophylactic before any operation or procedure where the urine may become infected is of the utmost value, since if the urine is clean and highly acid, and sufficient urotropin is given in small doses to keep it continually present, the urine will not support the life of any organism, and becomes indeed a powerfully antiseptic fluid. Urotropin should only be given where the urine is or can be made acid, otherwise it is inert. It should never be given with potassium citrate in *B. coli* infections. If it is desired to try the effect of making the urine alkaline in these conditions one should use boric acid and uva ursi infusion.

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**PERSISTENT HICCUGH:**—Persistent hiccough is often a troublesome condition, and as many remedies are advised for its relief the following experience may be of interest: Major X., on Nov. 23, was suddenly taken ill in the evening. When I saw him that night he had had a severe chill and was running a temperature of 102.6°. He had previously suffered from a light attack of cerebral apoplexy, had an enlarged prostate with old interstitial nephritis, and a much dilated stomach. With appropriate emunctory remedies, as the symptoms were due to intestinal autointoxication, the



temperature became normal the next afternoon, and he expressed himself as feeling much better. On the afternoon of Nov. 27 a slight hiccough developed, for which he was in the first place given some peppermint water, with, as the symptoms increased, a sinapism. He was taking only a liquid diet, and there was no question of gastric distention with improper food, as this had been fully relieved. He passed a restless night with much hiccough. This persisting during the day, the next night he received 1-50 of a grain of atropine with morphine hydrochlorate, gr. 1-8 by hypodermic injection. He slept better and there was absence of hiccough for two or three hours, but it was renewed the next morning. I was afraid to wash out his stomach as he was unused to it and the previous attack of apoplexy made one careful not to let him undergo any great exertion. He was given chloretone gr. iij with urotropin gr. xx every two hours as the urine was alkaline. This had no result. Ringer's mustard treatment was then tried, but also was of no avail. I then gave him ten drops of a saturated solution of menthol in spiritus vini rect., in a little hot water. This was to be repeated every hour if necessary. With the first dose relief was experienced, and after four doses in the first twenty-four hours there has been no recurrence of the hiccough. Dilatation with carbonic acid and the posture treatment I did not try as my patient's condition negatived them.—*F. H. Mead, M.D., in N. Y. Med. Record.*

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**GOODNIGHT OPERATION FOR THE CURE OF VARICOCELE:—**  
The Goodnight operation is the simple shortening of the scrotum. It is very seldom necessary to open the tunica vaginalis, or to resect the enlarged veins, and our explanation is based upon the physiological action of the circulation.

Varicocele is relieved when the patient lies prone upon the back or wears a suspensory. The primary cause of varicocele, in our opinion, is the dragging down of the cord by the weight of the testicle. In all the cases of varicocele the scrotum is relaxed and the testicles swing low.

The technique of the operation is simple and is about as follows: Push the testicles high up in the scrotum and place a clamp across the scrotum just below the testicles in their high position. Cut away with sharp scissors or knife, all the scrotum below the clamp. Release the clamp and pick and ligate all bleeding points with catgut.

You will observe when the clamp is removed that the tunica vaginalis has not been opened. Close the wound with interrupted silkworm gut sutures. This will hold the testicles up permanently and take the weight off the cord, and does permanently relieve varicocele. If it is necessary in extreme cases, or where there is a hydrocele present, the tunica vaginalis can easily be opened through this incision, and it will not be found necessary to open higher up. This is a simple, but sure method of a permanent relief for varicocele.—*R. O. Braswell, M.D., of Ft. Worth, Texas., in Med. Review.*

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**THE PROGRESSIVE PHYSICIAN:**—In no other profession are there so many new discoveries being made, so many new facts being brought to light, and so many advances being made as in the medical profession.

It is necessary, then, for the physician to keep constantly posted and informed, to keep himself modernized, as it were, if he is to do justice to his patients and himself. Many physicians are content to plod along with the knowledge they acquired at college and the little money they may have picked up during their practice. It is this mediocre type of physician that brings discredit upon the rest of the profession. They are in a rut and they make no effort to get out of the rut. Attend the meetings of the Medical Society. If you don't belong—join today. Subscribe to several good medical journals, and read them. Don't be content with a library composed of the antiquated books you used in college. Order all the good medical books you can afford and read them. Modernize your office and office equipment. It will surprise you how much better you will

get along. how much more interest you will take in your cases and how much better you can handle them. No one deserves to practice medicine today who is not fully abreast with medical progress. The medical knowledge of your college days needs to be constantly supplemented with newer facts and ideas. The medical profession is no place for the stand-patter.—*Medical Sentinel*.

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THE ADVANTAGES OF THE SUPRAPUBIC OVER THE PERINEAL OPERATIONS:—1. The approach to the prostate is simple and practically bloodless.

2. The enucleation of adenomatous growths is accomplished with ease.

3. The working field is large and under perfect control.

4. The prostate is accessible and can be made more so by digital pressure on its rectal surface and without the danger of injury to the bladder from the use of tractors necessary in the perineal operation.

5. The muscular control of the bladder is not disturbed, since the internal sphincter may be avoided and the compressor urethræ lies outside the line of cleavage. Incontinence is therefore less frequent following this technic.

6. Permanent fistula are less frequent after the suprapubic operation. They never occur in fact if the urethra is bougied.

7. Stones can be more easily removed.

8. Sexual potency is maintained as frequently after the suprapubic operation as after the perineal, and the question of sterility is rarely of any consequence.

9. The mortality is, in properly selected cases, no greater and the percentage of uncomplicated cures is larger.—*John B. Deaver, M. D., in Annals of Surgery, March, 1914.*

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THE TREATMENT OF CHLOROSIS:—Albert Robin points out that one of the primary indications in this condition is to check the excessive functional activity of the stomach.

This is accomplished by the administration of extract of belladonna before meals, and of antacids after meals. The malnutrition is combated with the aid of arsenic administered per rectum or subcutaneously. In the former case the following solution is used:

R Fowler's solution, 6 c.c.

Distilled water, 94 c.c.

Of this 5 c.c are injected into the rectum every morning, following a cleansing enema. For hypodermic use cacodylate of sodium is administered in doses of 5 centigrams daily for eight days, with an intermission of four days, followed by a second series of injections.

Of the preparations of iron Robin prefers the iron and potassium tartrate and the reduced iron, the latter being especially indicated in cases in which a rapid effect is desired. If there is gastric irritability lactate of iron is given. Chloride of iron produces the best results in cases in which there is a hemorrhagic tendency.—*Bulletin General de Therapeutique*.

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**PUERPERAL SEPSIS, PROPHYLAXIS OF:**—Lactic acid is asserted by the author to be an important element present in normal vaginal secretions and lacking in pathologic secretions. Whenever irrigation of the vagina with boiled water through a speculum yields a yellowish fluid, he irrigates once daily for at least ten days with a 1:200 solution of lactic acid. This measure, applied for the last three and a half years to every parturient woman in which it was indicated, reduced the morbidity as regards puerperal fever from 28.6 to 7.6 per cent. Women with pathologic vaginal secretions thus prophylactically treated show no greater tendency to infection than those with normal secretions. The lactic acid seems to overcome the pathologic bacteria and favors the growth of those normally present.

The author also points out the danger of full baths before delivery, mentioning several cases of severe puerperal fever for which no cause could be found except the entrance of

bath water into the vagina.—*P. Zweifel (Zentralblatt für Gynakologie, September 27, 1913).*

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**VENESECTION IN CEREBRAL HEMORRHAGE:**—In cerebral hemorrhage in a full-blooded patient with face flushed and pulse full, bounding, somewhat slow, and of high tension (200 mm.), venesection will immediately reduce the tension, if only temporarily, 50 or more mm. thus aiding the organism to firmly fix the clot. With the common use and ease of employment of the various sphygmomanometers and the certainty thereby of the accurate determination of the blood-pressure, the physician can easily recognize the high-pressure indication. The act of venesection itself has assumed an unnatural formidableness because it is not in common practice. In the unusually stout person there may become difficulty in finding easily a vein at the bend of the elbow, but in these patients there are usually in the legs varicose veins which can be opened. There is no need of speaking of the complications common a century ago. To-day there should be none to the physician who uses even ordinary care. The author reports cases illustrating the benefit frequently derived from removing 12 to 48 ounces of blood in the high-pressure cases—*A. MacFarlane (Medical Record, January 17, 1914).*

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**SAFETY AND EFFICIENCY OF TYPHOID PROPHYLAXIS:**—It is proven that the prophylactic vaccination against typhoid fever is without danger, that the protection is almost absolute, even under conditions of unusual exposure, and that the entire process of immunization may be carried out in the field, with the troops under canvass and while exposed to infection from local sources. It is also proved that the process of immunization can be carried out safely and successfully in civil life on the outbreak of an epidemic of the disease.—*MAJOR F. F. RUSSELL, MEDICAL CORPS, U. S. ARMY, in Critic and Guide.*

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### *Original Communications.*

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#### A NEW METHOD OF TREATING TUBERCULOSIS WITH AVIRULENT LIVING BACILLI AND THEIR FILTRATES.

BY HANS KARFUNKEL, M. D.,  
Berlin, Germany.

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The essential feature of the method with which this paper deals is the treatment of tuberculosis with a Saprophytic Bacillus which has not heretofore been identified. Its bacteriological characteristics so far as is known at present, are the following, viz.:

1. The organism is a saprophytic which belongs to the mucor group of organisms.

2. It grows easily in glycerine bouillon and on glycerine agar in a fluffy homogenous growth.

3. It forms spores within two or three days and when the cultures are grown for a longer time only spores are found in it. These groups become well developed organisms in twelve to twenty-four hours when grown at a temperature of 37 degrees C.

4. A smear of the culture shows short bacilli and oval spores.

5. They stain with methylene blue and less readily with other staining solutions.

6. The fully developed organisms are motile.

7. They are not acid fast.

8. They are gram positive.

9. They are dissolved by Antiformin.

10. Injection of these bacilli into guinea pigs is followed by a slight reaction consisting of a little malaise and a slight rise of temperature. If the animals are killed fourteen days after the injection, there will be found in the lungs small, hard nodules which resemble very small tubercles, but they never break down. Control animals show no change after four to six weeks. If the injected animals are killed in four to six weeks no nodules are found.

11. When turtles are injected with these bacilli they show absolutely no physical effects except for the formation of the previously described nodules.

Since those organisms were proven to be avirulent with all animal experiments, I began to test them on tuberculous patients. I injected the patient with an emulsion of the bacilli in normal salt solution. Of which every c.c. of the solution represented 1(mg.) of the bacilli obtained from a fresh culture. Of this solution I administer from 0.1—2.0 c.c., the injections being usually made into the gluteal muscles though in some instances I have also given these bacilli intravenously.

The dosage of the solution is regulated by the severity of the lesion in the lungs. The more extensive the lesion the smaller is the dose; thus, in mild cases we give 0.1 to 1.0 c.c. In moderate cases to give 0.04 to 0.2 c.c. The age of the patient does not influence the dose. The reason for this dosage I shall explain later in my consideration of the probable mode of action of these bacilli. I have also used, in some cases, a filtrate of the bacilli obtained from a luxuriant glycerine bouillon culture. This filtrate was obtained by filtering the culture through a Berkefeld filter. It is not prepared by boiling however, because the solution decomposes when it is boiled. I gave the filtrate subcutaneously in doses of 0.05 to 0.1 to 0.2 c.c.

The cases that I treated consisted of three kinds: Pulmonary tuberculosis, surgical tuberculosis and tuberculosis of the skin.

#### METHOD OF RESEARCH.

To test the efficiency of the remedy I outlined the following working plan. During the first three months of my investigations I tested the emulsion of the bacilli on tuberculous patients, noting the reactions obtained both local and general; as well as the effect upon the subjective symptoms, and upon the lesion.

The next three months I tested the effect of the emulsion combined with tuberculin, in order to determine what effect the emulsion has upon the tuberculin reaction. Lastly, I added the filtrate to the treatment. In each of those groups I have about 2,000 injections. From the clinical research and the results obtained I was able to formulate which combinations and intervals were the best to use in various types of cases.

#### REACTION FOLLOWING THE INJECTIONS OF THE BACILLI.

Each injection of the bacilli may be followed by three kinds of reactions—local, general and focal.

*Local Reaction:* The local reaction which results from the injection of the bacilli, usually consists in pain and ten-



derness at the site of injection. *I have never seen an infiltration or an abscess in any of the cases I have treated.*

**General Reaction:** The general reaction consists of a slight rise of temperature, headache and a feeling of malaise.

**Focal Reaction:** The focal reaction consists in increased cough and expectoration with exaggerated physical signs. Occasionally the cough, expectoration and physical signs are lessened. In some instances the following unusual effects occur: a rash which the patient has had for years may disappear after the injection; this can often be considered as a reaction. In some instances a patient who has had neuralgia for years, the pains of the neuralgia may be increased for a short time and then entirely disappear.

All the symptoms of the local reaction, the general reaction, and the focal reaction are the manifestations of the negative phase, and usually last from one to two days, sometimes they last longer; but usually disappear, leaving no bad after effects.

The focal reaction is of particular value, since it indicates that the lesion from which the patient is suffering has been favorably affected by the injection.

#### THERAPEUTIC EFFECTS OF THE INJECTIONS

Besides the temporary reactions which result from injections of the bacilli, the lasting effects are usually the following:

1. Night sweats are the first to disappear.
2. The breathing becomes easier.
3. The patient becomes stronger.
4. The temperature gradually subsides.

In some cases all these symptoms disappear gradually, in other cases they may disappear at once or only one by one.

The subjective symptoms disappear more gradually. In

the milder cases usually in from 36 to 129 days, on an average of about 63 days.

In the severe cases the objective symptoms disappear in about 74 days to ten months, depending upon the severity of the cases and the extent of the lesion.

#### TYPES OF PULMONARY TUBERCULOSIS.

The cases of pulmonary tuberculosis which I have observed I have classified into the distinct groups: *Moderate and severe cases*. The *moderate* cases are those with an extensive lesion in the lung, but with several general symptoms, or those cases with a small lesion in the lung, but with severe general symptoms.

The *severe* cases are those with extensive lesions in the lungs; usually with severe general symptoms, such as temperature, cachexia, loss of weight, night sweats, etc.; some of these severe cases may have only very slight general symptoms. I do not include in this classification the mild cases which have only slight general symptoms with or without a demonstrable lesion in the lungs, because I realize that such cases can be cured by hygienic measures.

I treated 140 of such cases, however, of which 100 per cent were cured; that is, cured for the length of time that they were under observation. By cured, I mean the disappearance in from four to five weeks of the subjective and objective symptoms.

Of the moderate cases I treated 180 with the following results:

1. The subjective symptoms disappeared in all of them.
2. In 40 per cent of these cases there was a complete disappearance of all physical signs in the lungs, and in the other 60 per cent of the cases the physical signs became considerably diminished. Table No. 1 shows the effects obtained in forty-one of the more striking cases thus treated, which were taken at random from my clinical records.

Of the severe cases I treated, about 150 in which I did

not include however the moribund hopeless ones. With the exception of these, the effects obtained were the following:

1. In all the cases there was a complete disappearance of the subjective symptoms.

2. In 30 per cent of these cases the physical signs disappeared to an extent as such signs can disappear in these cases. In these cases the lesion is so extensive and so much destruction of tissue, that the resulting scar formation will leave physical signs; but the process becomes entirely inactive. In the other 64 per cent of the cases the physical signs become markedly diminished. Table No. 2 shows a group of some of the most striking cases and the results obtained. As can be seen from the tables the most striking effects were obtained in children. In this type of cases results were obtained in four to five weeks, which are certainly quite startling, even in severe cases, and it is these results particularly which have served to increase my confidence in the remedy in the highest degree.

In all cases blood counts were made and showed usually an increased leucocytosis of from 15,000 to 30,000, with a marked increase in the lymphocytes; usually from 30 to 50 per cent.

#### METHOD OF PROCEDURE.

The treatment of each case is begun with an injection of the bacilli—the dose depending upon the severity of the lesion. The reaction obtained from the bacilli determines the succeeding treatment. If this injection is followed by an ordinary reaction, we give an injection of the filtrate in about four to ten days. The succeeding injection of the bacilli is usually given in about four to five weeks, the time depending upon the effect obtained from the previous injection; that is, if no effect in the lesion is obtained from the first injection we may repeat the second injection of the bacilli in one to two weeks. Preferably together with the filtrate. In some instances the filtrate alone is given at regular intervals after the first injection of the bacilli.

In patients who are running a temperature the bacilli must be given in very small doses. If the temperature does not subside within fourteen days after the treatment is begun, the filtrate should be injected about every third day until the temperature subsides. In some cases, for example, lesions that have been encapsulated by scar tissue, we combine the treatment with occasional small doses of tuberculin, but never large enough to give a reaction. The reason for this is that the bacilli and the filtrate produce the effect by circulating in the blood or serum with which they surround the lesion. The tuberculin causes a serous exudation area around the lesion so that the bacilli or the filtrate may affect the focus. The dose of the bacilli is usually smaller the more extensive the lesion is. My observations with the numerous injections have shown that in extensive lesions moderate doses may produce distinctly worse symptoms; even a tendency to progression of the lesion, and an increase in the toxic symptoms. We assume that these symptoms result from the disintegration of the tubercle bacilli or the tuberculous tissue; therefore I have found that the more extensive the process or the more active it is, the smaller should be the dose. When the continued treatment is for any reason impossible, we can get continued results by treating the patient with bacilli alone, without the filtrate or tuberculin; the kind and frequency depending on how the patient stood the last injection. For example, patients, 16, 469, 1057 and 1058 in table No. 2 were treated with a single dose of the bacilli alone without any subsequent treatment.

#### SURGICAL CASES.

The surgical cases which were treated were mostly tuberculous fistulas or tuberculous arthritis. In these cases the treatment consists of injections of the bacilli alone without tuberculin or the filtrate.

The cases of the tuberculosis of the skin are also treated in this way; often by the injection of the bacilli directly

into the lesion. Some of the most striking effects were obtained by injecting the bacilli directly into an area of lupus in the skin. (See table No. 3.)

#### PROBABLE MODE OF ACTION.

That the bacilli produce definite effects in the physical signs of the tuberculous lesions, a careful study of the accompanying tables based upon our own observations and the observation of other numerous competent observers have been proven without a doubt. The terminal results in each case were determined by physical examinations—absence of tubercle bacilli, absence of fever, loss of tuberculin reaction and absence of subjective symptoms.

The explanation would be simple indeed, if the bacilli were tubercle bacilli or were in any way related to them; but such however is not the case. The principle upon which this treatment is based is one which has been shown in a number of instances; for example, by Emmerich, who was able to cure Anthrax with injections of streptococci, with bacillus pyocyaneus and bacillus prodigiosus. It is possible to immunize guinea pigs against typhus with cholera bacilli.

From the fact that Bergel has shown that lymphocytes form a fat splitting ferment in the body, and from the investigations which I am carrying on, it seems probable that the bacilli themselves produces a fat splitting ferment. It is possible therefore that one mode of action may be due to the formation of a fat splitting ferment which dissolves the fatty capsule of the tubercle bacillus liberating its endotoxin; which then stimulates the formation of the antibodies. This accounts for the lessening of the tuberculin reaction during the treatment. At the same time a leucocytosis which is produced around the tuberculous lesion helps to overcome it.

The addition of tuberculin to the method of treatment is based upon the following facts:

We know that tuberculin produces a serious exudation

# BEFORE TREAT

## SUBJECTIVE SYMPTOMS

| Sex. | No. of Case. | NAME. | Age. | Cough. | Ex-<br>pectora-<br>tion. | Pain<br>in<br>Chest. | Loss<br>of Appe-<br>tite. | Loss<br>of<br>Flesh. | Night<br>Sweats. | Dy-<br>spnea. | Hæmo-<br>tysis. |
|------|--------------|-------|------|--------|--------------------------|----------------------|---------------------------|----------------------|------------------|---------------|-----------------|
| F.   | 646          | H. B. | 36   | yes    | yes                      | yes                  | yes                       | .....                | .....            | .....         | .....           |
| F.   | 648          | B. S. | 36   | yes    | .....                    | yes                  | yes                       | .....                | .....            | .....         | .....           |
| F.   | 662          | H. W. | 23   | yes    | .....                    | yes                  | .....                     | .....                | .....            | yes           | .....           |
| M.   | 676          | K. F. | 15   | yes    | yes                      | yes                  | yes                       | .....                | yes              | yes           | .....           |
| F.   | 707          | L. A. | 23   | yes    | yes                      | yes                  | .....                     | yes                  | .....            | yes           | .....           |
| F.   | 714          | A. F. | 33   | yes    | yes                      | yes                  | .....                     | yes                  | .....            | yes           | .....           |
| F.   | 718          | A. S. | 30   | .....  | .....                    | .....                | .....                     | marked               | .....            | marked        | .....           |
| M.   | 720          | L. A. | 11   | yes    | yes                      | .....                | .....                     | yes                  | marked           | .....         | .....           |
| F.   | 729          | H. F. | 16   | .....  | yes                      | yes                  | .....                     | .....                | yes              | .....         | .....           |
| F.   | 735          | C. J. | 15   | yes    | .....                    | yes                  | yes                       | .....                | .....            | .....         | .....           |
| F.   | 738          | J. M. | 6    | marked | .....                    | yes                  | yes                       | marked               | .....            | .....         | .....           |
| M.   | 824          | J. F. | 52   | yes    | .....                    | .....                | yes                       | .....                | yes              | yes           | .....           |
| F.   | 835          | M. K. | 10½  | .....  | .....                    | .....                | marked                    | .....                | .....            | .....         | .....           |
| F.   | 875          | H. J. | 42   | yes    | yes                      | yes                  | .....                     | .....                | .....            | yes           | .....           |
| F.   | 878          | M. K. | 30   | .....  | .....                    | yes                  | .....                     | .....                | marked           | .....         | .....           |
| M.   | 885          | W. H. | 4    | yes    | .....                    | .....                | marked                    | yes                  | .....            | .....         | .....           |
| F.   | 886          | G. H. | 30   | .....  | yes                      | yes                  | .....                     | .....                | .....            | .....         | .....           |
| M.   | 892          | R. W. | 34   | .....  | .....                    | yes                  | yes                       | .....                | .....            | .....         | .....           |
| M.   | 900          | E. K. | 8    | yes    | yes                      | yes                  | .....                     | yes                  | marked           | .....         | .....           |
| M.   | 906          | W. H. | 31   | yes    | yes                      | yes                  | .....                     | .....                | .....            | .....         | .....           |
| F.   | 907          | R. T. | 50   | yes    | yes                      | yes+                 | .....                     | yes                  | .....            | .....         | .....           |
| F.   | 910          | K. S. | 34   | yes    | yes                      | yes                  | .....                     | .....                | .....            | .....         | .....           |
| F.   | 928          | P. G. | 40   | yes    | yes                      | yes                  | .....                     | .....                | .....            | .....         | .....           |
| F.   | 931          | H. S. | 30   | .....  | yes                      | yes                  | .....                     | yes                  | .....            | yes           | .....           |
| M.   | 932          | O. V. | 25   | .....  | .....                    | yes                  | .....                     | .....                | .....            | .....         | .....           |
| M.   | 933          | M. G. | 29   | .....  | yes                      | yes                  | .....                     | .....                | .....            | .....         | .....           |
| F.   | 960          | M. H. | 39   | yes    | yes                      | yes                  | yes                       | yes                  | .....            | .....         | .....           |
| F.   | 965          | A. L. | 38   | yes    | yes                      | yes                  | yes                       | .....                | .....            | .....         | .....           |
| M.   | 976          | K. F. | 31   | .....  | yes                      | yes                  | yes                       | yes                  | .....            | yes           | .....           |
| F.   | 980          | G. T. | 10   | .....  | .....                    | marked               | yes                       | .....                | yes              | .....         | .....           |
| F.   | 981          | M. W. | 9    | .....  | .....                    | yes                  | .....                     | .....                | yes              | .....         | .....           |
| F.   | 982          | M. W. | 31   | .....  | .....                    | .....                | .....                     | .....                | .....            | yes           | .....           |
| F.   | 983          | E. T. | 32   | .....  | .....                    | yes                  | yes                       | yes                  | .....            | .....         | .....           |
| M.   | 992          | E. F. | 30   | .....  | .....                    | .....                | .....                     | .....                | .....            | yes           | .....           |
| F.   | 997          | G. W. | 33   | yes    | yes                      | yes                  | .....                     | .....                | .....            | yes           | .....           |
| F.   | 998          | G. O. | 5    | marked | marked                   | .....                | yes                       | .....                | yes              | .....         | .....           |
| M.   | 1009         | P. B. | 39   | yes    | yes                      | yes                  | .....                     | yes                  | yes              | yes           | yes             |
| M.   | 1021         | H. W. | 17   | yes    | .....                    | .....                | .....                     | .....                | yes              | yes           | .....           |
| F.   | 1026         | M. M. | 42   | yes    | .....                    | .....                | yes                       | .....                | .....            | .....         | .....           |
| F.   | 1029         | E. B. | 24   | yes    | yes                      | .....                | .....                     | .....                | .....            | .....         | .....           |
| M.   | 1047         | H. J. | 18   | marked | marked+                  | yes                  | .....                     | marked               | .....            | yes           | .....           |



around the tuberculous focus. In those cases where the tuberculous focus is encapsulated, the bacilli may not reach it. The addition of tuberculin produces a serous exudation around the focus so that the bacilli are then able to attack the lesion. If in addition to the encapsulated focus there is another unencapsulated focus, tuberculin is not necessary; because the disintegration of the unencapsulated focus produces enough tuberculin to cause an exudation around the tuberculous focus.

A very extensive outline of the theory of the efficiency of the filtrate and tuberculin will be given in a subsequent article.

#### CASE REPORTS.

Clinical reports sometimes convey a more vivid picture than general description with its necessary qualifications; but in a disease so multifarious in aspect as the one under consideration and the large number of cases embodied in this paper—*clinical reports in extenso* are out of the question. Table No. 1 comprises 41 cases of the moderate type of pulmonary tuberculosis of which two are selected for brief narration as illustrative of the great variety in detail which may help the reader to more intelligently interpret the tabulated cases in table No. 1.

Case No. 907, Mrs. E. R., painter's wife \_\_\_\_\_, consulted me on July 4, 1913.

Previous history—Mother died of tuberculosis. The patient as a child suffered from an enlargement of the cervical glands.

Present illness dates back some years, patient thin and emaciated, complained of slight tendency to catch cold, has deep cough with expectoration, pains in the back, loss of appetite, nightsweats, increase of temperature, short winded, weakness, often treated by physicians, and in hospitals and sanitariums. Examination: anteriorly right supra and infra-clavicular area, dullness on percussion, posteriorly dullness over right and left supraspinous fossa



to the midst of scapula, and broncho-vesicular breathing anteriorly and posteriorly.

Treatment: First injection of bacilli July 7, 1913. This injection was followed by two other injections of bacilli, four injections of tuberculin and four injections of filtrate until October 7, 1913.

August 29, 1913, there were no objective physical signs, in the lungs, the sides, left infrascapular fossa, dullness, which was changed September 26, into shortened sound.

Subjectively complete improvement.

No tubercle bacilli found in sputum.

#### RESUME.

Success of treatment, thoroughly satisfactory.

Length of treatment, about three months.

Temperature became normal.

Weight increased  $1\frac{1}{2}$  kilo.

Classification, active tuberculosis of the lungs, severe stage.

Case 910, Mrs. J. Sch., aged 34 years, tailor's wife, Berlin, June 30, 1913, complains of cough, expectoration profusely in the morning, pains in chest and back, general condition good.

Examination: Dullness on percussion over right supraclavicular area and over supraspinous fossa to the middle of scapula and intrascapular space. Auscultation shows moist rales in apex of right lung. Tubercle bacilli in sputum.

Treatment: First injection of bacilli July 3, 1913, another on August 28, 1913, also three injections of tuberculin combined with filtrate.

August 29, 1913, the state of the lungs was completely normal and the patient felt absolutely well.

No tubercle bacilli found.

## RESUME.

Success of treatment, very satisfactory.

Length of treatment, about eight weeks.

Weight gained  $1\frac{1}{2}$  kilo.

Classification, moderate severe tuberculosis of the lungs.

(See Table I.)

Of the severe type of pulmonary tuberculosis cases recorded in table No. 2, two cases are selected for brief narration to more clearly illustrate the type of cases tabulated in the table.

Case 1034, Mrs. A. P., age 30 years, locksmith's wife, Berlin. Previous history: Had pneumouia 5 years ago, about  $1\frac{1}{2}$  years she began to have nightsweats and cough.

Present illness, complains of cough, much expectoration, heavy pains in the left side of the thorax and in the back, loss of weight, short winded, weakness, unable to do any housework.

Examination: Dullness over both apices anteriorly and posteriorly over the infra-scapular space to the base of the lungs.

Right supra-clavicular area-ales at the height of inspiration. Left side broncho-vesicular breathing in the sphere of dullness. Weight  $48\frac{1}{2}$  kilo. Treatment, September 22, 1913. Injection of bacilli October 17, 1913. Four injections of the filtrate and 3 of. filtrate combined with tuberculin were injected. Examination October 20, 1913, showed right supra-spinous fossa and below the middle of the scapula shortened sounds, no tubercle bacilli in sputum.

Case No. 1014 F. S. Age 6 years, coachman's son, Berlin. Mother suffering from a severe type of pulmonary tuberculosis, under treatment at present time. Present illness: annoying cough, night sweats and shortness of breath. Two years previously had pneumonia.

Examination: Von Pirquet test positive—dullness on percussion over all parts of the right lung; on auscultation everywhere whispered breathing with sibilant and sonorous rales. Left lung everywhere sibilant breathing. Treat-

ment and result: One injection September 2, 1913. No other injection or treatment. October 20, 1913. No objective signs except shortened sounds, sputum free from tubercle bacilli.

(See Table II.)

Of the tuberculous lesions of the skin, bones and joints recorded in table No. 3, two are added here in brief narration with the hope of elucidating the clinical facts abbreviated in the table.

Private case, W. S., aged  $4\frac{1}{2}$  years, actor's son, Charlottenburg, Germany, tuberculous dactylitis of the first and fourth toe of the right foot. Over the swollen place the skin is bluish colored. Since past summer there has been a secreting fistula on the forehead which was operated on without success. Wasserman reaction negative.

Treatment: First injection of bacilli April 29, 1913, following injection was a formation of cold abscesses over the colored places on toes. Second injection May 17, 1913, formation of an abscess over the first toe.

Both abscesses were given free drainage and soon healed very satisfactory. June 3, 1913, both limbs completely normal. The secretion of the fistula on forehead healed at the same time, and the general condition of the anemic boy was very much improved.

Case 891, P. R., age 30 years, occupation toilet waiter, Berlin. Previous history: Had hemorrhages 2 years ago, and from his childhood had often scrofulous symptoms. A few years ago he was operated on for tuberculosis of hip joint. Present history: Complains of cough, loss of appetite, much emaciated, some times night sweats, shortness of breath, general weakness, walks with a limp due to a secreting fistula behind the scar of operation, weight 46 kilo; on percussion dullness over both right and left apices of the lungs.

Right infra-clavicular area, broncho vesicular breathing over a considerable area. Treatment: First injection of bacilli June 30, 1913, with closing of fistula in 10 days.

He received two more injections of bacilli and three injections of tuberculin and three of filtrate.

(See Table III.)

#### CONCLUSIONS.

1. The treatment consists in producing immunity against tuberculosis by saprophytic organisms.
2. Early cases of pulmonary tuberculosis can be cured objectively in about four to five weeks.
3. Forty per cent of moderate cases can be cured objectively in about six weeks to three months.
4. Thirty per cent of severe cases can be made inactive in about  $2\frac{1}{2}$  to ten months.
5. Surgical cases can be cured in a few weeks to a few months.

*Great Northern Hotel, New York City.*

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#### NOTES ON THE TREATMENT OF GASTRITIS.

BY W. T. MARRS, M. D.

Of Peoria Heights, Ill.

The proper treatment of chronic gastritis and all dyspeptic conditions depends in a goodly measure upon age, habits, occupation and personal peculiarities. In the diagnosis of a case it should be remembered that gastritis, more or less chronic in form, may be a concomitant of numerous other depraved systemic conditions, *e. g.*, anemia, chlorosis, malignancy, gout and renal and hepatic disease.

Some one has said, with reason as well as rhyme, that we should not eat when we are mad or sad, but only when we are glad. Food should also be postponed when we are very warm and tired. When a person who is fatigued and hot and mentally depressed takes food, washing it down with ice water, the effects are in a high degree damaging to the peptic and hydrochloric acid cells.

Rapid eating and faulty chewing are strong factors in the production of gastric fermentation. Another matter not to be overlooked is the absorption into the system of putres-

cent matter from the mouth as a result of carious teeth, diseased gums and the lack of oral hygiene. The assiduous use of the toothbrush is a great aid to digestion.

The sufferer from chronic gastritis is usually troubled with gaseous eructations alternated with pains in the stomach. The belching of a little gas usually affords a measure of relief. Pyrosis, or heartburn, is another common symptom. In many cases there is a sour stomach and vomiting. In all such it is well to examine the stomach contents to ascertain whether it is due to hypersecretion of hydrochloric acid or to a fermentation from other acids, as lactic, acetic, fatty, etc.

In old, stubborn cases of gastritis there exists a weakness of the muscular coat of the stomach; in consequence of which food remains in the stomach for a longer time. Thus in time the stomach becomes dilated with fermentation and eructations are pronounced symptoms. Constipation is also likely to become a troublesome added symptom.

In the treatment it should be our aim to correct all abnormal functions so far as possible, giving special attention to the stomach and its auxiliary organs, viz., the liver, pancreas, kidneys. The diet must be looked into by the physician, but not to a meddlesome degree. Many dyspeptics have certain obsessions and fears concerning foods and are afraid to eat almost anything.

It is true that objectionable articles of diet should be tabooed, with all due attention given to idiosyncrasy. As a rule it is not what the patient eats that hurts him so much as improper eating, the quantity, etc.

Many persons find the digestive function to proceed much better when lying down for an hour or so after the meal. Sometimes a good deal of relief is afforded by the wearing of a suitable abdominal band. This is especially serviceable in corpulent persons and in cases where stomach dilatation exists.

In stubborn cases an occasional stomach washing with

normal salt solution is a good thing. Remnants of food adhering to the stomach mucosa are swept away, peristalsis is strengthened and muscular and glandular activity are increased.

As to remedies calculated to give digestion a lift, the pepsin family has always stood at the head of the list. A very satisfactory digestant and regulator of the secretory function in many cases is *peptenzyme*, which is a pepsin and pancreatin reinforced with the nucleo-enzymes of the hepatic, salivary and intestinal glands, as well as of the pancreas and spleen.

Occasionally a stomachic, as *nux vomica*, *gentian*, etc., may exert a modicum of good. Salines, calomel and cascara are of value when there is hepatic torpor or constipation. The colon tube may in some cases be needed from time to time to obviate the formation of scybala in the sigmoid flexure and descending colon.

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## *Editorial.*

### DEMENTIA AUTOMOBILIS.

All new editions of our medical dictionaries contain a number of new words and new terms, necessarily essential by reason of the progressive and changing nature of the science and art of medicine, and the term at the head of this article is suggested as one that is greatly needed at the present time, in order to complete and perfect the etiological factors of death in our vital statistics and mortality lists.

The exhilarating effects—amounting in many cases to a veritable intoxication—of high speed and rapid motion that can be attained by the automobile is daily adding to the death rate in a most alarming manner. For both pleasure and business “the horseless carriage” may well be regarded as one of the great advances of the age, and especially is it a great boon to the medical profession; not only for its convenience and comfort, but even by a reasonable degree of speed, greatly extending the field and increasing the capabilities and possibilities of the practitioner of medicine and surgery.

And yet, how often it is that one of the genus homo—male or female—at other times and on other occasions reasonably rational,

on grasping the steering wheel of an auto and taking charge of the machine, loses control of himself or herself; lose their heads and are positively crazy, endangering not only their lives and those riding with them, but the lives of others who have an equal right to use the public highway.

This speed mania, or may we not term it "*dementia automobilis*," attacks all classes, men, women, and children—the white or black chauffeur, the merchant, the manufacturer, the artisan, the mechanic, the judge and juror, the banker, broker, butcher, baker, tailor, plumber, or tinker—even a Methodist preacher on his way to prayer meeting, going at a thirty or forty-mile clip, not many months ago ran into the writer, greatly endangering four lives—the autoist and his companion and the writer and his daughter escaping very serious injury by the veriest miracle; and not very long since was the report in the daily press of the demolition of a \$4,500 car, containing the wife and children of a physician, driven by him at 50 miles an hour, rounding a curve, resulting in the death of three, the permanently crippling of two, and when the wreckage was cleared away it was found that one of the steel springs of the car had been driven to the depth of eight inches into the trunk of a tree by the wayside. And what, if you or I, your wife, son, or daughter, or any one else had been standing there!

Zeppelin airships have carried over 10,000 persons without injuring one of them, not because air-sailing in Germany is less risky than motoring in this country, but because only sane and sound persons are allowed control of the steering gear of an airship; while children, drunkards, fools, and the (temporarily) insane are permitted to drive automobiles. Thirty, forty, and sixty or more miles per hour should never be permitted, unless running on a steel track, with flanged wheels and an absolute "right of way." The pneumatic tire, which may explode or rupture while running at high speed over a very small elevation or depression; the peculiar steering gear, with its double-jointed axle, and the rights of others to the public thoroughfares, imperatively demand a more rigid regulation of the speed of automobiles than has heretofore obtained. The high speed of which the auto is capable tempts the too self-reliant driver to indulge in a rapidity of motion and momentum for which no city street or rural roadway is suitable, and which makes homicide too imminent and frequent, occasioning the diurnal report in the columns of the secular press of accidents, injuries, death, and destruction of and by automobiles.

Oh, yes! The auto is a splendid machine, its value is incalculable, its benefits immeasurable, it is being improved every day, and we can no more get along without it than we can do without the

telegraph, the telephone, the sewing machine, the Mergenthaler, and the thousands and thousands of latter-day inventions and improvements; but for Heaven's sake, and for the good of mankind, and especially women and children, for the sake of the lame, the deaf and the blind, let us be reasonable in its use; and let the strong arm of the law prevent its abuse.

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#### REGISTRATION OF VITAL STATISTICS.

We again desire to call the attention of our many readers, especially in this State to this important enactment of our last Legislature, now being carried out by our State Board of Health; and sincerely hope that our professional confreres will give it their most hearty and earnest support. Physicians of Nashville and the other larger cities in the State, through their local Health Boards, have now become so accustomed to filling out the required reports that it has become habitual, and have long since recognized that its importance amply justifies the small additional tax upon their time; yet, we well remember, that a little over thirty years ago when our municipal authorities empowered our local Board of Health to collect and compile the data furnished by the doctors, that quite a number of the latter objected to and grumbled and growled thereat.

In our last number we cited the important point brought out by Dr. Shoulders, Secretary of our State Board of Health, in regard to the correct mortality rate in this State. In this, May, 1914, number of the *Woman's Home Companion* is a very interesting article, entitled "Safeguarding of the Child," by Julia C. Lathrop, Chief of the Children's Bureau in the U. S. Dept. of Labor, from which we quote the following paragraph:

"The importance of a birth record is very well illustrated by the case, recently brought to the attention of the Children's Bureau, of a young Swiss immigrant who, coming to this country and settling in Indiana, was killed, leaving a widow and infant child. The mother, in dire poverty, had trouble to keep herself and her baby alive by scrubbing and sewing. One day there came to her an official letter from the Government of Switzerland, stating that her late husband's brother had left twelve thousand dollars to this child. All that was demanded was proof of identity, with the customary birth certificate. But there was no such certificate, and the much-needed money was lost.

"Another instance of the kind, likewise in Indiana, had to do with a farm which was left to a girl by her grandfather. Being twenty-one years of age, she was entitled to the property. But a dispute arose. Her father, who had the use of the farm during her minority, claimed that she was only nineteen. There was no birth certificate



to prove her age. But, happily, a neighbor remembered that a valuable cow belonging to the grandfather had given birth to a calf on the same day that the girl was born. The birth of the calf had been duly recorded, and, this evidence being accepted by the court, the young woman obtained possession of her farm."

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#### TENNESSEE STATE MEDICAL ASSOCIATION.

At its recent meeting held in Memphis, Tenn., the following officers were elected: President, Dr. S. M. Miller, of Knoxville, succeeding Dr. W. D. Haggard, of Nashville, who held the distinction the past year.

Vice-Presidents—Middle Tennessee, Dr. Hilliard Wood, of Nashville; East Tennessee, Dr. J. M. Clack, of Rockwood; West, Tennessee, Dr. S. T. Parker, of Lexington, Tenn.; Secretary and Editor of the Association Journal, Dr. Olin West, of Nashville; Treasurer, Dr. C. N. Cowden, of Nashville.

Trustee for three-year term, Dr. Geo. E. Petty, of Memphis. Delegates to the American Medical Association, Dr. Perry Bromberg, of Nashville (two years), Dr. A. F. Richards, of Sparta (alternate, Dr. E. C. Ellett, of Memphis (one year), Dr. W. T. Black, of Memphis (alternate).

Councillors—First District, Dr. C. P. Fox, of Greeneville; Second District, Dr. A. F. Richards, of Sparta; Fifth District, Dr. Frank B. Reagor, Shelbyville; Seventh District, Dr. L. E. Wheat, of Pulaski; Ninth District, Dr. T. B. Wingo, of Martin.

The next annual meeting will be held in Nashville.

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**VACCINATION:**—Unquestionably the many cases of "bad arms" following this very essential procedure is the principal cause of the many objections—in some cases very positive, argued against it. Granted that it is very simple, and should be regarded as a very minor operation; yet in its simplicity no gap should be left for other infection than that intended. In the *Va. Med. Semi-Monthly*, April 10, 1914, R. L. De Saussure, of Mine Run, Va., gives the following suggestions which we can and do commend, emphasizing the *fourth*, and for the second, using preferably the vaccine point as the instrument for scarification:

"*First*—The site of operation should be at the insertion of the deltoid muscle, for here there is the least muscular action.

"*Second*—The instrument used should be a scalpel, needle, or scarifier, which should be boiled.

"*Third*—The skin over the deltoid insertion should be thoroughly scrubbed with soap and water, then alcohol, and finally with sterile

water, as the alcohol, if left *in situ*, might antagonize the vaccine.

"*Fourth*—After the inoculation has been made and the serum dried, a sterile dressing of gauze should be applied over the wound and held in place by adhesive strips. This should remain in place until a scab forms.

"The fourth step is the one neglected, often with such painful results. The skin is the greatest protection we have against bacteria. To most germs it is armor-proof. In vaccination we have penetrated this armor and the contention of some physicians that the serum inoculated drying on the wound is as protective as the skin is futile."

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A PROMISING AGENT IN GASTRO-INTESTINAL DISORDERS:—There is undoubtedly an intimate relationship between putrefactive changes in the alimentary canal, caused by the growth of harmful microbes, and disturbances of the general health, as of the digestive organs, the kidneys, the heart and blood-vessels, the brain and nervous system, etc. Intestinal antiseptics, it is believed, do not cleanse the digestive tract of objectionable bacteria and poisonous substances resulting from their growth, nor is purgative medication effective. The bacillus bulgaricus, administered in the form of tablets, is said, on the other hand, to be notably efficacious in such conditions. It is asserted that these lactic-acid-producing bacilli, thus administered, survive for a long time in the intestines, multiplying and producing quantities of lactic acid, obstructing the growth of harmful microorganisms and preventing disease.

Tablets of bacillus bulgaricus have given good results in the vomiting and diarrheas of infants, in diseases due to intestinal antointoxication, and in glycosuria and diabetes. They are prepared by Parke, Davis & Co., being supplied in vials of twenty-five tablets. The adult dose is one to three tablets, administered after meals for a period of three or four days, the treatment being repeated as clinical indications suggest.

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A NEW BICHLORIDE TABLET:—The wave of accidental poisoning from Bichloride Tablets that seems to be sweeping the country ought to receive a setback from the coffin-shaped tablets the Norwich Pharmaceutical Company, of Norwich, N. Y., is just introducing.

Their Bichloride Tablets are made in the shape of a coffin with "Poison" in raised letters on one side and skull and crossbones on the other. The container is a coffin-shaped bottle whose entire surface, with the exception of the label space, is covered with well-defined, diamond-shaped projections. An attractive two-color label calls renewed attention to the dangerous contents of the bottle.

This unusual and gruesome shape, both of tablet and bottle, cer-

tainly ought to halt any one but an imbecile by its suggestive character, while the sharp projections on the bottle, in daylight or darkness, are bound to call instant attention to the unusual and poisonous character of its contents. As it is impossible to pick up one of these bottles without feeling these projections, its advantages as a precautionary container are obvious.

The Norwich people have always been alert in anticipating the demands of the professional public, and this latest product from their laboratories indicates that they still have their ears to the ground.

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THE FOURTH ANNUAL REPORT of the medical director of the *Cincinnati Sanitarium* has just come to hand. It is a handsome twenty-eight page brochure, beautifully illustrated, and is accompanied by a reprint of Dr. Emerson A. North's article in *The Lancet-Clinic* of recent date on "Syphilis of the Nervous System: Its Mode of Attack, Diagnosis and Treatment." At the beginning of the year, ninety-five patients were under treatment; there were 176 admissions during the year, making the total number receiving treatment the past year 271. Sixty-two were discharged recovered; one hundred improved; nineteen unimproved; eight died. The daily average of patients was 87.42; the percentage of recoveries to admissions, 35.22; mortality, 2.9 per cent. This excellent record is obtained in spite of the fact that there is no selection of cases, any case of nervous or mental disease being received. The high percentage of recoveries and low mortality rate have long been recognized as important features in this institution. Dr. F. W. Langdon is medical director; Drs. B. A. Williams and Emerson A. North, resident physicians, and H. P. Collins, president and business manager.

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DANGER DUE TO SUBSTITUTION:—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The more recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

**BACTERIAL VACCINE THERAPY:**—Treatment of infectious diseases with preparations derived from corresponding micro-organisms is unquestionably growing in favor. Not only do the bacterial vaccines (or bacterins) seem destined to a permanent place in therapeutics, but their field of applicability is constantly broadening. Proof of this is seen in the growing list of these products announced by Parke, Davis & Co., no less than nineteen of the vaccines now being offered to the profession.

There are a number of reasons for the favor which is being accorded to the bacterial vaccines. In the first place these products are in consonance with the scientific trend of present-day medication. They are being used with a gratifying measure of success. The way in which they are marketed (sterile solutions in hermetically sealed bulbs and in graduated syringes, ready for injection) appeals to the modern medical man, since it assures both safety and convenience. The moderate prices at which they may be purchased also tend to give them vogue.

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**THE RECOVERY FROM LA GRIPPE:**—Among all of the acute infections there is probably none that is as likely to leave the patient quite as thoroughly devitalized and generally prostrated, as does a sharp attack of La Grippe. For some reason the degree of prostration from grippal infection appears to be entirely out of proportion to the severity of the attack itself. This peculiarity renders it advisable and usually necessary to strengthen and support the general vitality of the patient during the period of convalescence. Complete rest, nourishing food, plenty of fresh air and stimulation according to indications are, of course, distinctly important measures. At the same time tonic and hematinic medication should not be neglected. Probably the most generally acceptable and efficient general tonic and hemic reconstituent for such patients is Pepto-Mangan (Gude), a bland, non-irritant and promptly absorbable combination of the organic peptonates of iron and manganese. This efficient blood-builder and reconstructive does not disturb or induce constipation, and is readily taken by patients of all ages.

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**IN CHRONIC CATARRHAL CONDITIONS** the persistent use of Glyco-Thymoline will dissolve and remove the accumulations of tenacious mucus with the dead and dying epithelial cells—also loosen any crust formations, and at the same time reduce the congestion of the mucous membrane, thus tending to restore to normal conditions.

In the general treatment of nose and throat troubles, when inflammatory conditions prevail, no other remedy gives the immediate relief afforded by Glyco-Thymoline.

**PHILLIPS' PALATABLE EMULSION OF COD LIVER OIL** is made of the finest quality of Norwegian Cod Liver Oil (50 per cent), combined with Phosphoric Acid and the Phosphates of Potash, Magnesia, Lime and Iron. The oil globules are as minutely subdivided as the fat globules in milk.

The average dose of *Phillips' Palatable Emulsion* is a teaspoonful to a tablespoonful and the effect will be greatly enhanced if given on an empty stomach, or when gastric digestion is about completed, about two hours after meals and not immediately thereafter. The reaction of *Phillips' Palatable Emulsion* is sufficiently acid to stimulate the opening of the pylorus, and facilitate its passing out of the stomach; it will thus have a shorter time to stay therein, and will pass out quickly into the duodenum, thus obviating any unpleasant regurgitation. It is miscible with and may be taken in water, milk, extract of malt, or other beverages.

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**DOUBLE ELIMINATION:**—Where the body is saturated with the waste-products of metabolism it is an important part of good medical treatment that these useless, harmful substances be thoroughly eliminated. The urinary system is a channel of evacuation, as well as the intestinal tract, and to free the system of toxic waste-products through both these channels is a logical procedure.

Defective elimination readily becomes a chronic condition since the toxemic patient lacks that initiative which is necessary to active physical exercise. A rational therapeutic treatment must be instituted while proper hygienic conditions are being re-established. In these cases, Cystogen-Aperient performs a double service by stimulating to normal function, and by disinfecting the urinary and intestinal tracts; Cystogen-Aperient (granular effervescent salt) combines the tonic and laxative properties of sodium phosphate and tartrate with the urinary-antiseptic and solvent action of Cystogen ( $C_6H_{12}N_4$ ).

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**THE INCREASING USE OF PHYSIOLOGICAL PRODUCTS** must be attributed to the fact that physicians do see results from their use. Having been leaders in this country along this line for so long a time, Messrs. Reed & Carmick are sparing no expense in their laboratories and in research work to give to the profession the best products in the physiological line for their use. The stomach weakened by disease, easily and with the least exertion, takes up and assimilates *Trophonine*; because it contains the nucleo-albumines and nucleo-proteids, thus forming a concentrated food with the highest degree of nourishment. Write to Messrs. R. & C., 42-44-46 Germania Avenue, Jersey City, N. J., for samples, etc.

**SURGEON-GENERAL GORGAS HONORED:**—On March 23 the medical profession of London, England, gave a dinner to Surgeon-General Gorgas, who stopped in that city on his return to America from South Africa, as a tribute to the great work done by him as chief of the sanitary department of Panama. Many notables were in attendance. The following day, General Gorgas, in company with Dr. Osler, visited Oxford, and there had conferred upon him the degree of doctor of science. He has now entered upon his duties in Washington as Surgeon-General of the U. S. Army.

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**IN RHEUMATISM AND GOUT** Sal Hepatica furnishes the physician with an ideal eliminant, usually affording prompt relief. The regular and continued use of Sal Hepatica does not impair its activity, making a large dose necessary, and its discontinuance, unlike other laxatives, does not leave the bowels more constipated than at the beginning.

*In acute indigestion* Sal Hepatica gives prompt relief, and owing to its saline and neutralizing properties, the physician will find it most efficient in the treatment of *catarrhal* and *acid conditions* of the stomach and intestines.

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**A RARE REPUTATION:**—A rare reputation among soothing and soporific agents has been earned by *Pasadyne* (Daniel)—the concentrated tincture of *passiflora incarnata*. This enviable reputation has been gained by *Pasadyne* (Daniel) because of its potency of therapeutic effect coupled with its marked freedom from disagreeable influences. Even in moderate dosage its tranquilizing power becomes manifest. A sample bottle may be had by addressing the laboratory of John B. Daniel, 34 Wall Street, Atlanta, Ga.

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**TREATMENT OF A PERSISTENT BRONCHIAL IRRITATION:**—In the treatment of a persisting bronchial irritation which manifests itself by moderate secretion of mucus and by an annoying cough, Cord. Ext. Ol. Morrhuæ Comp. (Hagee) will be found of marked utility. It not only soothes the irritation, but increases the mucosa's power of resistance and thus enables it the more quickly to correct the underlying morbid condition.

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**NEW SURGEON-GENERAL FOR THE U. S. NAVY:**—Medical Inspector William C. Braisted has been appointed by Secretary of the Navy as Surgeon General of the U. S. Navy, to succeed Surgeon General Charles Stokes, whose term of office expired in February. Surgeon-General Stokes was highly complimented by the Secretary for the splendid work done during his administration.

**AN ALLY WORTHY OF CONFIDENCE:**—It is going on toward twenty years since Gray's Glycerine Tonic Comp. was first placed at the service of the medical profession. During all this period Gray's Glycerine Tonic Comp. has maintained the standards that first attracted attention and the busy practitioner has ever found it an ally worthy of confidence. It never disappoints and in the treatment of atonic conditions, particularly of the gastro-intestinal tract, it is often the one remedy that will produce tangible and satisfactory results. The physician who does not use it in his practice is denying his patient many benefits that can be obtained in no other way.

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**THE PROGRESSIVE, UP-TO-DATE PRACTITIONER** is now advising his patients to use *CITROLAX* instead of the bitter salts or the ordinary purgatives. One tablet dissolved in a glass of water gives a pleasant, effervescing drink—tastes like lemonade and is effective. By mentioning the *Southern Practitioner*, Foley & Company, Chicago, Illinois, will send you liberal samples for your personal use and office dispensing.

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**DIPHTHERIA:**—In an article on its "Treatment and Prophylaxis" in *The Memphis Med. Monthly*, Dr. P. H. Wood very correctly summarizes as follows: 1. Don't wait for a bacteriological report in any one suspicious case, but give antitoxin immediately. 2. Give it in large amounts. So far, an overdose is unheard of. 3. Give immunizing doses immediately to all contacts, and have cultures made from throats of same.

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## Selections

**THE HYGIENE OF THE CARBOHYDRATES:**—The various classes of foodstuffs taken into the body from time to time to serve as fuel for its sustenance after being masticated and changed by the active processes seem to still come under the same three headings that have stood for many years, namely, the Proteids, Carbohydrates and Fats. This division it would seem is not likely to change for a long time to come, while the continued discussion goes on as to what kind of food is best for one's physical being to keep it in good health, that from the animal or vegetable kingdom. It would seem almost an easy matter to be able to decide

what is the proper kind of food to take from the great variety to choose from; however, this is not exactly the case, and it is hardly to be wondered at on account of the differences in temperament and peculiarities of individuals, as, for instance, in one case it is known a certain man has never been able to eat fish of any kind although he is in good physical health, while others can eat fish and prefer it to almost anything else. When the statement made by some authorities goes broadcast that children can eat all the carbohydrate food they wish in the way of all kinds of candies without restriction, it seems to me the investigators working along this line have made a serious mistake.

In my opinion one of the quickest ways to injure the health of children is to allow them to eat all the sweets they desire without any regulation; in fact, it is a mistake to stuff children with any kind of food, to say nothing of candies, for there is more danger in over feeding than in under feeding, if I am not mistaken, especially in the earlier ages of childhood when the tissues are susceptible to changes.

If children eat all the carbohydrate material they wish in the way of sweets, they will not only contract bad habits, but run the chance of injuring and undermining their constitutions for life, unless some regulation is followed, as that is not a good way to begin with a child for life's journey.

Many children will be eating sweets all the time whenever they can get any, thus gorging themselves upon many occasions; ruining their teeth and digestion, for it is well known that children always have a special liking for the sweet material. Now sweets of all kinds are composed entirely of carbohydrate material or fuel for heating the body, so when taken internally in large or small amounts, especially in between meals and on an empty stomach, tend to overheat it, cause headaches, malaise, neuralgia, toothache and enervation of the body. Carbohydrate material as a diet alone or in excess in any form acts as an irritant



to the mucous membrane of the stomach and causes catarrh and disturbances of the sensory nervous system; in fact, this may be one way to cause an eczema or produce a psoriatic condition of the body.

Yellowness and paleness of the face is caused by this food, while a tired, languid feeling is soon brought on, because it does not strengthen, but heat or overheat or burn, it may be said, too much, while a person is more susceptible to cold for that reason, and coughs or bronchial trouble are also brought on along with other things.

If older people can be affected by an excess of carbohydrates in various ways, what effect must they have on growing children, and more so those inclined to be delicate? What happens to children fed too much on hot bread, hot cakes, pastry and sweets for a short time? Ill health, nervousness and loss of vitality. Who cannot remember an instance of some child feeling sick from being stuffed with too much hot bread or sweets and complaining of a 'tomach ache?

Now feed a dog entirely on carbohydrate or starchy material—non-nitrogenous food and what happens? It will soon emaciate and die in a short time, for its tissues are not renewed by this food nor strengthened, but it may be said burned out.

Now give a man the same kind of a diet and he will soon waste away and die for the same reason.

Then if children are allowed to eat all the carbohydrate material they want, it is readily seen what the effect is going to be on the body in time.

Nitrogenous food, of course, is always required to renew the tissues which become wasted and worn during the activities of life.

To take one class of food all the time as a diet, whether proteids, carbohydrates or fats, is not good, as a mixed diet of all kinds of material seems to be the best for the body welfare, both mental and physical; then it gets all the elements necessary for its maintenance, and functioning chil-

dren will be almost certain to take enough carbohydrate food in the way of good or bad.

White bread, pie, cakes, sugar, etc., do them harm, without indulging freely in all kinds of sweets as they please for any length of time, eating them at all hours and in between meals, which is bad. It is much better to take candies or sweets of any kind after a meal, the noon or evening meal being better than in the morning, on top of some food, instead of taking them on an empty stomach, because they then become mixed up with the food in the stomach and do not exert any injurious effect; but to eat them at all hours of the day, either for grownup people or children, is bad. as the stomach is never empty, never gets a rest. In other words, the body is coddled into ill-health from repletion. A bad carbohydrate combination that is taken regularly almost every day by hundreds of people who eat quick lunches is that of pie, coffee and doughnuts. This, if continued any length of time, would soon cause irritability and nervousness, as it contains little or no substantial nourishment for the body tissues.

A much better combination would be coffee, a baked apple and toast or rye bread or a rye bread sandwich, while there are many other combinations that are far better to take which do not produce any ill effects. Some sweets are all right in their place, but the proper use of them is one thing and abuse another.

It would then seem a mistake for any one to advise children to eat all the sweets they want without any restriction whatever as to amount, time of day or any definite rules regarding them.—*John C. Warbrick, M. D., of Chicago, in Dietetic and Hygienic Gazette.*

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**THE STATUS OF RADIUM:**—It is unfortunate that, with its usual tendency toward exaggeration and sensationalism concerning scientific matters, the public press has greatly overstated and overrated the value of radium in the treat-

ment of cancer. As in the recent Friedman fiasco, the result has been to raise false hopes in the hearts of sufferers that could only end in the saddest unfulfilment and to discredit scientific medicine in the eyes of the public.

Yet it is not entirely the papers that are to blame. Physicians and experimentors are too inclined to become enthusiastic over a few successful reports; they have a tendency toward the post hoc, ergo propter hoc reasoning and are all too eager to publish reports and interviews that transcends strict accuracy. Their enthusiasm quickly spreads to the public and the profession. In the case of radium particularly, there has been a fever of enthusiasm. As Delano states, "All Europe is aflame. A veritable radium-fever rages."

These overcolored and half-baked reports have had a tendency to belittle the value of surgery in these conditions; in fact, many of the radium enthusiasts have strongly condemned surgical intervention. Yet, up to now, with all the enthusiastic reports at hand, early and complete surgical removal with proper technic offers to the cancer patient the greatest chance of recovery and prolongation of life. Radium has not, as yet, supplanted the knife in early cases. It has, however, to its credit some remarkable results. Abbe, who in this country was a pioneer in radium research, declares, "A new era has dawned in surgery." Kronig reports fifteen completely healed cases of inoperable cancer of the uterus. Bumm, Voight and Gauss also report striking cures. Many of the reports, however, include surface cancers of the epithelioma type that probably would have responded as well to the X-ray.

Taking issue with these glowing reports are many discouraging ones. Exner, of Vienna, in forty cases has had absolutely negative results. One hindrance toward a more thorough understanding of radium and its curative properties is the fact that many cases are necessarily given an insufficient dosage, owing to its high cost and limited sup-

ply, and the fact that for the same reason the experiments are in the hands of but few.

It is estimated that a supply of radium sufficient to cure an ordinary cancer would cost from \$5,000 to \$10,000.

When the present fervor and enthusiasm concerning radium has abated we can better approximate its value. We can recall similar hysterical waves of enthusiasm that swept over the profession at the announcement of Koch's Tuberculin, Friedman's serum, Beir's hyperemia, and other fads and fallacies, that have since been relegated to their proper spheres. The proper policy is one of extreme conservatism in regard to this new discovery, an adoption of President Wilson's policy of "watchful waiting" until time and further experiments have more definitely established its place.

Concerning radium the bulletin of the American Society for the Control of Cancer states:

"The curative effects of radium are limited today to superficial cancers of the skin, to superficial growths of mucous membrane, which are not true cancers, and to some deeper-lying tumors of bone which are not very malignant. The problem of the constitutional treatment of advanced, inoperable cancer is still untouched by any method yet devised or likely to be devised for administering radium.

"Even among the so-called radium cures it still remains to be determined in many cases whether the favorable result is permanent or is to be followed sooner or later by the usual recurrence. The most competent surgeons do not dare to pronounce a case cured until five years have elapsed after an apparently successful operation. The same test must be applied before we can finally determine the real value of radium.

"It should be emphasized especially that radium cannot at present exert any permanent benefit on generalized cancer; and since cancer in a very large proportion of cases is widely disseminated in the body early in the course of the

disease, this entire group of cases can expect no important relief from radium.

"The best results of radium therapy can be secured only when comparatively large amounts are available for use, and the present limited world's supply of this metal places it out of reach of the great majority of patients."—*Medical Sentinel*.

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**TREATMENT OF CHRONIC NEPHRITIS:**—In the *N. Y. Med. Jour.* March 28, 1914, Tyson states that the indications are first to protect the system against toxins which tend to accumulate in the blood because of deficient elimination by the damaged kidney; second, to protect against complications and certain grave symptoms and their consequences; third, to restore the normal structure of the diseased organs. The first indication is met by cutting out protein foods, whence for the most part arise the toxins referred to, and, second, by stimulating the function of organs other than the kidneys whose office it is to supplement the renal excretion. Quite as important as the quality of food is the quantity. Overeating is often the cause of nephritis; especially therefore should it be avoided by the nephritic. Having cut down protein foods and substituted others the next step is to stimulate the excretion of the toxic products of deranged protein metabolism. The functions of the kidneys are stimulated by the saline diuretics, of which potassium citrate is the type, and by the alterative diuretics as iodine and calomel. The skin is also an efficient agent in eliminating toxins. It is availed of most effectually by the hot pack, the hot-air bath, hot vapor bath, or electric light bath. There can be no doubt that the kidney is subject to structural repair. All that promotes natural and normal function and maintains normal circulation, tends to promote healing. The complications of chronic nephritis are numerous, but only a few demand detailed consideration. They include bronchitis, edema of the lungs, pneumonia,

pericarditis, more rarely endocarditis, pleurisy, and effusion into the serous sacs. Among symptoms requiring special or modified treatment are uremia and edema, general and local. A brisk purge, a sweat, or a bloodletting may avert the threatening convulsion and coma of anemia. The presence of coma or convulsions militates against the usual modes of giving medicine. A couple of drops of croton oil mixed with a teaspoonful of plain oil may be carried to the back of the tongue, or one-sixth grain of elaterium or one-twelfth grain elaterin dissolved in a small quantity of water. Chloroform may be inhaled to control the convulsions. After the purgative has had its effect an enema of chloral in solution, as much as a dram of the drug in four ounces of water, may be given to supplement the effect of ether and to continue it. Simultaneously, or in close association with these measures, is the sweating which may have been used in the initial stage of treatment. The best method of securing sweating at this stage is by the hot pack or vapor bath. The fluid extract of jaborandi or pilocarpine hydrochloride may be used to facilitate the action of heat, small doses, such as a quarter of a grain of pilocarpine, being sufficient when combined with the heat; while large doses, though more active, are apt to produce edema of the lungs. The operative treatment of chronic nephritis, Edebohl's operation, is not resorted to as often as should be.

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VALUE OF PITUITRIN IN SURGICAL SHOCK.—The author noted a marked effect upon the blood-pressure in patients to whom this product was given before they left the operating table. In an illustrative case, at the beginning of the operation the blood-pressure was about 105 mm. Hg, but dropped to 80 a short time after the abdomen was opened, and held approximately at this point throughout the operation. After the first injection of pituitrin in this case, before closure of the wound, the blood-pressure increased to 85 and then to 90 within a short time. At this point a sec-

ond injection of 10 minims was given, and forty-five minutes later the pressure registered 110. The pulse rate dropped in proportion to the increase in blood-pressure. No evidence of shock was noted, although the operation had been rather protracted.

All the author's patients, before leaving the operating room, receive pituitrin, 15 minims, hypodermically. After recovery from anesthesia, the following measures are used: (1) Fowler position—fifteen inches of elevation of head of bed. (2) Enteroclysis, using glass nozzle with two or more openings. (3) Hypodermics of pituitrin, 15 minims every three hours for four doses. (4) Ice caps to the abdomen. (5) Sips of hot water and hot tea; no cracked ice or cold water for the first twelve hours. (6) Hypodermics of morphine, 1-6 grain, and physostigmine, 1-75 grain, for pain or restlessness, to be repeated in three hours if necessary. (7) If blood-pressure is below normal, continuation of pituitrin and addition of hypodermics of camphorated oil, 2 grains every three hours. (8) Catheterization, if necessary, only every eight hours. (9) Water, coffee, tea, orange juice, meat juice, and broths may be given before first bowel movement, after which milk and soft diet may be allowed.

In 800 abdominal operations in which pituitrin was used, the author did not in any instance witness a symptom of shock except in two or three cases, in which a condition simulating "heart exhaustion" was noted. Whether or not this apparent exhaustion was due to overstimulation is a question; many other factors may have been responsible. The symptoms were only transient, the patient responding to stimulation after the administration of pituitrin was discontinued, and in each instance making an uneventful recovery. The writer confirms the experience of others that pituitrin effectually removes gas from the alimentary tract and increases peristalsis.—*C. A. Hill (Boston Medical and Surgical Journal).*

**TREATMENT OF VARICOSE VEINS OF THE LEGS WITH MODIFIED UNNA'S PASTE BOOTS:**—This treatment is applicable to all forms of varicose veins of the lower extremities, but only the milder forms can be cured permanently by its use. In these mild cases the treatment seems to restore the caliber of the veins sufficiently to enable the valves to again take up their normal function.

In advanced cases the patient is greatly benefited so long as these boots are worn, but there is a recurrence of the trouble as soon as the patient stops using this device.

Following operations for the removal of varicose veins this treatment is also useful. It is usually well for patients to wear these boots for from six to twelve weeks after operation; from three to six months in mild cases of varicose veins, and indefinitely for very severe cases or until an operation is performed.

*Preparation of the Paste.*—Take 10 parts of distilled water and add 4 parts by weight of the best sheet gelatin; permit this to soak over night, then heat over a water-bath and stir constantly until the gelatin is thoroughly dissolved. Then add 10 parts of glycerin and stir while the mixture is still hot. Then add 4 parts of impalpable oxid of zinc powder and continue stirring. Apply this mixture while hot to the foot and leg with a large ordinary paint brush and take a two-inch guaze roller bandage and apply this over the mixture which has been painted over the extremity; then cover this bandage with more of the mixture and apply a second bandage, and then apply a third bandage, and a fourth, being careful always to cover these bandages thoroughly with this mixture, also being careful to apply these bandages very smoothly so that no wrinkles form, which would give rise to great discomfort. It is important not to apply the bandages too tightly. The last guaze bandage is applied without being covered with any of the paste, in order to keep the latter from soiling the



bedclothes. Each dressing may be worn for a period of six or eight weeks.

This method was introduced many years ago by my brother, Dr. E. H. Ochsner.—A. J. Ochsner, in *Medical World*.

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IS PARESIS OF THE INSANE CURABLE:—Two physicians working in the Rockefeller Institute, Drs. Swift and Ellis, have made a discovery that may lead to a means of curing paresis of the insane. This form of insanity has long been known to be due to syphilis, but unfortunately brain syphilis has not been readily amenable to treatment. Furthermore, until quite recently it has been an open question whether this disease is due to the active presence of the spirochaetae, or whether it was purely para-syphilitic. Noguchi's identification of the organism of syphilis in brains of patients who had died from the disease seemed to settle the question—it is an active manifestation of the disease.

Why, then, does salvarsan prove of so little value in these cases? The answer is that as ordinarily administered, intravenously, it can not reach the cerebrospinal cavities. To give it intraspinaly was found to be attended with difficulties and dangers, but finally a solution of the problem was found by Swift and Ellis, who gave the salvarsan by the usual intravenous route and then, after a suitable interval withdrew a quantity of the patient's blood in which the arsenical remedy was combined with the blood serum. This serum, when injected into the spinal canal after lumbar puncture and withdrawal of fluid, proved to be not only inoffensive, but also to possess remedial powers of an unusually high order.

Already a considerable number of cases of paresis have been treated in this manner. They were not all cured—indeed, it is a question whether any of them were actually "cured;" but many of them showed improvement, and in some cases the improvement was really remarkable. It

seems safe to hope—if not quite safe to promise—that in many of these heretofore incurable cases the disease may be arrested—in some cases actually cured. And already physicians are investigating the possibilities of the method in tabes. In a few such cases great improvement has followed the employment of salvarsan-serum.—Medical Standard.

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**ALBUMIN IN URINE, TEST FOR:—**The test described by the author is asserted by him to be equal in delicacy to any other and to have certain features which make it superior to them for routine use. The following solution is employed:

|                       |             |
|-----------------------|-------------|
| Picric acid .....     | 5 parts.    |
| Citric acid .....     | 10 parts.   |
| Sodium chloride ..... | 100 parts.  |
| Distilled water ..... | 1000 parts. |

*Technique.*—Place 2 or 3 c.c. of the reagent in a test-tube. Filter the urine until it is perfectly clear. Then allow urine very gently to float upon the surface of the reagent in the inclined test-tube. Albumin will show as a white zone at the line of contact of the two amber fluids, which are practically isochromic.

*Advantages.*—(1) The white ring is shown very clearly. (2) The reagent contains no chemicals which react with urinary pigments, bile, etc.; therefore, no color zones are formed which might hide a small amount of albumin. (3) The heavy specific gravity of the reagent—1065—prevents ready mixing of the urine and the reagent, so that, should albumin be present, it is not apt to be diffused and overlooked. (4) The reagent keeps indefinitely. (5) If spilled, it does no damage to clothing or fabrics, an advantage not possessed by nitric acid. (6) Boiling produces no change, nor is it dangerous; in cold weather, with a cloudy urine from phosphates which the filter does not remove, boiling the reagent first is a distinct advantage, as the hot reagent restores the clearness to the urine as the fluids come into

contact. (7) The reagent does not throw down crystals of salts of urea or nitrogenous substances in concentrated urines.—A. E. Osmond (*Lancet-Clinic.*)

THE FAVORITE FORMULA OR PET PRESCRIPTION:—Every physician, whether optimistic or pessimistic in his general attitude toward the materia medica, usually has a favorite formula—a certain combination of drugs which he uses for many and varied selected conditions. It is his favorite formula; here is mine:

|                             | gm. or c.c. |           |
|-----------------------------|-------------|-----------|
| R Codein sulphate.....      | 1           | gr. ii    |
| Acetphenetidin .....        | 75          | gr. xii   |
| Aspirin .....               | 2           | gr. xxxii |
| Cinchonidin salicylate..... | 5           | gr. viii  |

Make eight capsules. One every hour or two.

With this formula, under appropriate conditions, the cure of patients becomes strictly a case of *cito, tuto et jucunde*, as we are admonished it should be. It will symptomatically cure grip, and if given on the first day will in many cases produce such an improvement by the second as to prevent its complications and incidentally—*malum in se*—do away with the doctor. I have used the favorite formula with satisfaction in most inflammations. There are other indications naturally suggested by its ingredients to which it seems excellently adapted and which it is unnecessary to enumerate.—Wilfred M. Barton, M. D., Washington, D. C., in J. A. M. A.

PILOCARPINE IN SCIATICA:—Pilocarpine nitrate given hypodermically in daily doses of 1-6 to 1-10 grain has been found of great value in sciatica by Dr. G. A. Young (*Interstate Med. Jour.*) as also in the various forms of interstitial neuritis. The usual diaphoretic measures should precede. It should be given daily for ten days or two weeks, to be discontinued then if no improvement has taken place, or to be continued if the patient is recovering.

**THE TREATMENT OF CHLOROSIS:**—Albert Robin points out that one of the primary indications in this condition is to check the excessive functional activity of the stomach. This is accomplished by the administration of extract of belladonna before meals, and of antacids after meals. The malnutrition is combated with the aid of arsenic administered per rectum or subcutaneously. In the former case the following solution is used:

R Fowler's solution, 6 c.c.

Distilled water, 94 c.c.

Of this 5 c.c. are injected into the rectum every morning, following a cleansing enema. For hypodermic use of 5 centigrams daily for eight days, with an intermission of four days, followed by a second series of injections.

Of the preparations of iron Robin prefers the iron and potassium tartrate and the reduced iron, the latter being especially indicated in cases in which a rapid effect is desired. If there is gastric irritability lactate of iron is given. Chloride of iron produces the best results in cases in which there is a hemorrhagic tendency.—*Bulletin General de Therapeutique*.

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**BILE IN TREATMENT OF GASTRIC ULCER:**—Taking into account the irritating effect of the gastric juice in gastric ulcer, K. Glassner (*Wien. klin. Woch.*) was led to try bile therapy, with favorable results. Bile has been shown by the author, both clinically and experimentally, to diminish the acidity of the gastric juice and inhibit peptic activity. Sodium cholate, 3 grains, made into an emulsion in an equal amount of oil and inclosed in a gelatin capsule, was the usual mode of administration;  $1\frac{1}{2}$  grains of cholic acid was also sometimes used. In 33 cases thus treated, including some of other affections besides gastric ulcer, considerable benefit was noted. In some of the patients a complete cure of hyperacidity and the gastric disturbances dependent upon it appears to have been obtained.—*Critic and Guide*.

**DIAGNOSING MASTURBATION IN GIRLS:**—The following ingenious method of diagnosing masturbation in young girls—older ones, too, perhaps—is described by Bernard Kaufman in *The New York Medical Journal* for October 18, 1913, page 772:

Secure a specimen of the child's urine and examine carefully for exclusion of the presence of yeast. This done, direct the mother to give the child some yeast, made up fairly soft to play with just before it goes to bed. Then, without allowing the girl to wash her hands, put her to bed, putting her in a shortened nightgown. Next morning she is to collect the child's urine in a carefully cleansed vessel and promptly bring it to the physician's office. This urine then is centrifuged, and if the yeast fungus is found in it, the author says, it is proof positive of the practice of masturbation.

The difficulty with assuming this an infallible test lies in the fact that even accidental touching of the genitals, which may occur to the most healthy-minded youngster, would lead to yeast contamination. A series of these tests should be made, and then the girl should be examined for worms or other possible causes of itching or irritation before pronouncing a "positive" diagnosis.

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**INGROWING TOE-NAIL:**—According to Liesching, in *The British Medical Journal* for September 20, 1913 (p. 740), good results in the treatment of ingrowing toe-nail may be obtained by dusting the affected part with a little powdered lead nitrate, after careful cleansing. A white scab forms, which must be removed on the following day, otherwise pus is liable to collect underneath; the dusting being then repeated. The same treatment is followed from day to day as long as necessary. Liesching has been using this method for many years, with satisfactory results.

**THE TREATMENT OF LEUKAEMIA WITH BENZOL, BY ROESLER:**—Roesler says that of late many cases of leukaemia treated with benzol have been reported, and that while many authorities are in favor of such treatment, some do not approve it. He states that in two cases in which Roentgenotherapy and arsenic had not produced any improvement at all, he used benzol. In the first case, in which the number of leucocytes had risen to 280,000 to the cmm., with numerous myelocytes, after the benzol treatment the leucocytes dropped down to 8,000. In the second case the number of leucocytes was 137,000 to the cmm., and, after a prolonged treatment, such number was reduced to 24,000. At the beginning of the treatment a slight increase of leucocytosis was noticed. Benzol was given in increasing doses, up to 4-5 grames pro die, mixed in equal parts with olive oil in capsules of "gelodurate." Such a dose, Roesler claims, can be administered for weeks at the time without any symptoms of intoxication; and that benzol, introduced into the organism, is broken up as are all benzolic derivatives, into phenols and diphenols (pyrocatechin, hydrochinone), which are found in the urine in combination with sulphuric acid and glycuronic acid.—*Wiener Klinische Wochenschrift*, Nov. 21, 1913. .

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**ROASTED SAWDUST AS A WOUND DRESSING:**—The sawdust of hard wood, such as boxwood or oak, is partially charred or roasted in a crucible, then finely sifted. The material thus obtained forms a serviceable antiseptic and absorbent dressing for wounds, having all the valuable properties of charcoal, yet retaining the high absorbent properties of sawdust. It is obviously suitable as a basis of the application of many remedies to wounds or discharging surfaces.—*Muench M. Woch.*

IT IS WORTH REMEMBERING that in Hodgkin's disease the glandular enlargements may be confined for a long time (even a year or more) to one side of the neck. In clinically differentiating this chronic, localized adenopathy from that of tuberculosis, absence of softening and of fusion of the glands, daily marked elevations of temperature, increasing anemia, and enlargement of the spleen, some or all of which signs and symptoms are usually present, are fairly diagnostic. A negative von Pirquet reaction, and a thick, doughy, pasty-appearing skin may also help the diagnosis.—*Amer. Jour. of Surgery.*

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A LOTION FOR USE IN URTICARIA:—Bouchard employs the following:

R Cocaine hydrochloride,  
Chloral hydrate,  
Resorcin, aa, 2 grams.  
Glycerin, 6 grams.  
Alcohol, 40 grams.  
Cherry laurel water, 60 grams.  
Distilled water, 90 grams.—*Med. Record.*

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IN ABDOMINAL SURGERY the field should be bloodless before closing the parietes. Don't depend upon it that "the little bleeding will stop," if a little extra pains with sutures or ligatures will make it stop. Sometimes "that little bleeding" doesn't stop, but causes an intraperitoneal hematoma or an alarming secondary hemorrhage.—*Amer. Jour. of Surgery.*

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THE ERROR IS OFTEN MADE by capable Roentgenologists of mistaking the normal bone grooves of meningeal arteries for lines of skull fracture. Familiarity with the location of these grooves and comparative radiographs of the opposite side will obviate such an error.—*Amer. Jour. of Surgery.*

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***Original Communications.***

**CHRONIC SUPPURATION OF THE MIDDLE EAR.\***

**BY HILLIARD WOOD, M.D., NASHVILLE, TENN.**

Chronic suppuration of the middle ear is a condition which derives its importance not alone from its frequency, the embarrassment of an offensive purulent discharge and the inevitable impairment of hearing, but also from the dangers due to the extension of the pathologic process to

\*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, May 5, 1914.



surrounding, and often vital parts, as the dura mater, the brain, the lateral sinus and facial nerve.

Most of these cases of chronic suppuration of the middle ear are due to acute suppuration; that is, the uncured cases of acute suppuration become the chronic. So that most cases of chronic suppuration were, at one time, acute suppuration. Acute suppuration of the middle ear is, of course, common. Most of these cases are cured within two to four weeks, but some, by their persistence, become chronic. The causes of this chronicity are the form of infection, the age and constitutional condition of the patient, the absence of early and effective paracentesis and drainage, the absence of proper treatment after drainage is established, and pathologic conditions in the nose and throat. Suppurations due to scarlatinal infection are especially prone to persist; thus many of the chronic suppurations met with in after life are due to scarlet fever in childhood. Pneumococcic and streptococcic infections are also prone to become chronic. Chronic suppurations are more prone to develop in children than in adults and in those whose vitality has been lowered by struma, tuberculosis, syphilis, anæmia, etc. The more I have seen of these cases the more I have been impressed with the importance of an early paracentesis of the drum as a means to lessen the pain and severity of the inflammation, and also the danger of chronic suppuration. Paracentesis of the drum is a much neglected operation. It should be done in every case of acute otitis media in which the drum bulges outward. It should always be done under general anæsthesia—not local; and anæsthesia produced by gas or ethyl chloride, being quick and brief, is especially suitable for these cases. It is true that, if let alone, nature will perforate the membrane, but the delay adds to the suffering of the patient and to the violence of the inflammation; and the opening is often so small as to be almost useless for purposes of drainage. Good drainage through a large opening is es-

sential in these cases, and that is why a liberal paracentesis is so valuable in the acute stage of suppurative otitis media.

After drainage is established, the pressure upon the inflamed tympanic membrane is reduced and the pain gradually subsides. Too often the discharge is neglected, especially in children; granulation tissue develops and a condition is established where cure, without artificial aid, is impossible.

Among the conditions giving rise to acute suppurations, and likewise the chronic, are pathologic conditions in the nose and throat, especially chronic inflammation of the adenoid tissue about the throat, as enlarged faucial and third tonsils. This cause is especially active in children. How common it is to find chronic suppuration of the middle ear in children with enlarged faucial and third tonsils; and the connection between the two is shown by the fact that many of these suppurations cannot be cured until after the faucial and third tonsils have been removed. No diagnosis of these cases is complete without a careful examination of the nose and throat.

The pathologic changes set up in the middle ear in chronic suppurations are of such a nature that neither time nor medical skill can restore to the tissues their original structure and functional activity. In acute suppurations it is possible for the tissues to return to their original structure and function, but in chronic suppurations, never. Take, as an example, the perforations in the drum. These perforations, when fresh, especially when made by the surgeon, may, if the inflammation subsides, heal and leave a good drum with normal hearing. But the perforation of a chronic suppuration is usually permanent. The difference is that in acute suppurations the drum, though perforated, is all there—none of it is destroyed; but in chronic suppuration there is an actual destruction of drum tissue, and this tissue is not restored. Likewise the tympanic mucoperiosteal lining undergoes permanent degenerative changes.

In spots the epithelium is thickened and becomes epidermoid in character. In other places it is exfoliated, giving rise to raw or ulcerated areas. The mucosa, in places, becomes infiltrated with round cells, and this may be so exaggerated as to give rise to granulation tissue, the so-called aural polypi, which will keep up the discharge indefinitely. Or these round cells may develop into cicatricial, or scar tissue, which by its contraction will often bind the parts into all sorts of abnormal relations, interfering with the vibrations in response to sound waves. Thus the drum is frequently attached to the inner tympanic wall. In this way pockets may be formed, in which pus stagnates and which, in turn, lead to granulation tissue and necrotic changes in the bony wall.

It is beyond the purpose of this paper to follow these pathologic changes into the mastoid antrum and cells, the lateral sinus, the dura and brain. Suffice it to say, that in chronic suppuration of the middle ear there are set up a series of morbid changes which cannot, either by the unaided efforts of nature, or by medical skill, be restored to the normal. But these morbid changes often react upon each other in such a way that, even in spite of treatment, the whole condition grows worse. In this way the hearing is permanently impaired; the offensive discharge, so humiliating to a patient of refined sensibilities, continues; and other complications, even dangerous to the life of the patient, are not rare.

The treatment of these cases should aim at the arrest of the discharge; the prevention, so far as possible, of acute exacerbations of the inflammation, so common and so troublesome in these cases; the preservation of whatever hearing is possible, and the prevention of those dangerous complications which threaten the life of the patient. The causes above enumerated which may have aided in setting up and maintaining the suppuration, should, so far as possible, be removed. The use of cleanliness, peroxide of

hydrogen, of powders which may be absorbent, antiseptic and stimulating; of nitrate of silver, and other so-called astringents, and the careful removal of granulation tissue should be faithfully carried out. In many cases we will be rewarded by a cessation of the discharge, at least for the time, and the patient will be rendered comfortable. But there are other cases, and it is of these I wish to speak, in which the discharge and other symptoms will not be relieved by the above or any similar treatment. In these the morbid changes are more especially found in the attic and mastoid antrum, and consist of concealed granulation tissue, cholesteatomatous masses or necrotic processes of the bony wall. These cases, when not curable by milder measures, should be subjected to operative interference. Especially should the operation be done when the chronic suppuration is associated with continued pain in the ear or corresponding side of the head, with a feeling of fulness, dizziness, or vertigo; chills and fever not otherwise accounted for; vomiting and other cerebral symptoms, especially when associated with optic neuritis, or the paralysis of ocular muscles. The presence of caries of the temporal bone, mastoid symptoms, facial paralysis and a free and offensive discharge also call for the operation of opening up the middle ear and surrounding cavities.

In brief, chronic suppuration of the middle ear, when not curable by milder measures, and when associated with any of the above symptoms indicating that the pathology is progressing, should be operated upon. The exact form of the operation will, of course, vary according to the location of the changes it is desired to correct. Where the pathology is confined to the atrium, attic and mastoid antrum the Stacke operation is, perhaps, the best. Where, in addition to the above, the mastoid cells, lateral sinus or cerebral cavity is involved, the Radical operation, as devised by Kuster, von Bergman and others, is preferable. In every case the object of the operation is to search out and remove

all pathology. It may be laid down as a rule that it is safer to extend the operation until all pathologic tissue is removed than it is to leave diseased tissue behind.

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### CIRRHOSIS OF THE LIVER\*

BY W. A. OUGHTERSON, M.D., OF NASHVILLE, TENN.

There are two types of chronic diffuse diseases of the liver attended with chronic diffuse cirrhosis; either may be limited in its nature or widespread. One is very common, usually the result directly or indirectly of excessive quantities of alcohol seen chiefly in men accustomed to taking undiluted liquors on an empty stomach. It is characterized by moderate enlargement (while in advanced stages the liver may be reduced in size); also by the following phenomenon, by portal obstruction, notably hematemesis and ascites, and by absence or unimportance of jaundice.

After the development of symptoms the course is usually of short duration. This is known as Laennec's portal alcoholic, atrophic or multilobular cirrhosis. The second of these disorders is rather of unknown origin, characterized by marked and persistent enlargement of the liver and spleen, by chronic jaundice, by periodical attacks of abdominal pain and fever; by the absence or manifestations of portal obstruction, and runs a comparatively long course. This type is known as Haynot's, Biliary and hypertrophic cirrhosis or monolobular cirrhosis. Alcohol does not describe all cases of Laennec's cirrhosis. It is a mooted question whether alcohol will or will not produce Haynot's cirrhosis. The two names, Haynot and Laennec, should be discontinued, as they are confusing and merge one into the other so closely that in many cases they cannot be separated.

The majority of cases occur about the fiftieth year; 48.7 being the average for 121 males, and 47 years being the

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\*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, May 12, 1914.

average for 44 females. (Rolliston.) It is by no means rare in extremes of life; in young children it is often fatal before the sixth year.

The older writer laid special stress on two main varieties—the atrophic and hypertrophic—lending much emphasis to alcohol as the chief cause. Until recent years investigation has been conducted from the pathological and clinical side. It seems now that there are a number of factors clearly demonstrated and much less emphasis is being laid on alcohol. It is quite true all investigators concede the importance of alcohol, at the same time admitting there is still an underlying cause. No doubt alcohol produces changes rendering the liver tissues more vulnerable to the attacks of other agents by causing gastric catarrh and the favoring of divers auto-toxins; inseparable from that condition, transported by the portal vein, may be the active factor in producing cirrhosis of the liver, otherwise rendering it vulnerable. One point all must concede, all cases of cirrhosis are not due to alcohol, and all alcoholics do not develop cirrhosis. Such acids as acetic, butyric, lactic and valerianic and other ill-understood enterogenous toxins, associated with different forms of indigestion, may be the causative factors in alcoholics. Alcohol is avoided by the Egyptians and Hindoos, who indulge freely in spices and condiments and decoctions of one form and another.

The possibility of poison from the spleen; an example is Banty's disease or splenic anemia with terminal cirrhosis and ascites.

Hereditary syphilis may produce a vulnerable state of the liver tissue; primary or acquired syphilis does not produce the typical cirrhosis of the liver. In Egypt *Uncinaria* and *Bilharzia* are looked upon as the cause of cirrhosis in that location. Adami's observation of the so-called diplococcus form of colon bacilli in man, and in infective cirrhosis in man and cattle is of much interest. Cirrhosis has been found in connection with hemachromatosis, in consequence

of the hemolysis blood pigment is set free and infiltrates the liver tissue.

No effort will be made to go into detail in the subject of perihepatitis, capsular cirrhosis, pericardial infections, mediastinal infection and a number of other conditions associated with portal obstruction, or gall bladder and pancreatic disease.

**CLASSIFICATION:** After a review of the literature on the subject of cirrhosis of the liver, it would seem that the following classification is justifiable: (1) Toxic; (2) Infections; (3) Pigment; (4) Syphilitic; and (5) Alcohol.

*Toxic*—Wooldridge carried on a series of experiments with the proteins of glandular organs and produced anatomically cirrhosis of the liver. Flexner experimented with the serum from dogs injected into other animals, which also produced a form of cirrhosis of the liver. Northnagel produced cirrhosis by the administration and inhalation of chloroform. This type was especially associated with degenerative changes, the healing processes resulting in cirrhosis. Marchwood experimented with antipyrin and produced cirrhosis. He also produced cirrhosis by the administration of ammonia salts. Price produced cirrhosis with a hemolytic serum. Opie confirmed Northnagel's results with chloroform. Joslyn was able to produce cirrhosis with silver nitrate and phenol (carbolic acid). Wagner used chloroform; fatty acids produced cirrhosis, and ligation with obstruction also produced cirrhosis. As a result of all the above experiments done, the fact stands out prominently from anything else in the toxic, and infectious type with proliferations of connective tissue and cirrhosis seems to follow repeated injuries to the liver cells.

In the *pigmentary, syphilitic, and tubercular* type there is, of course, the direct action on the connective tissue.

*The Infectious Type.*—Cirrhosis has been produced in rabbits by injecting into the veins of the ear staphylococci colon and other bacteria. Adami and his followers hold

that in many cases the colon bacilli from the bowel passes to the liver and there gradually excites a slow proliferation of connective tissue, regarding it as a kind of sub-infection.

Mallory says the only true infectious cirrhosis is through the bile ducts; usually where there is bile stasis, gall stones or other obstruction, cases are described in which invasion occurs along the apparently normal bile ducts, and the infection causes necrosis of the liver cells. Proliferation of the fibroblasts, thickening of the walls of the smaller bile ducts, which may be dilated and tortuous. Osler states that this type is rare and associated with chronic jaundice.

*The Pigmentary Type.*—This has been produced experimentally in animals by inhalation of coal dust, the same taking place in man, the production of coal particles reaching the liver through the lymphatics, producing varying degrees of cirrhosis. The type described resulting from chronic malaria and hemachromatosis is said to be a transformation of the hemoglobin.

*The Syphilitic Type.*—This type is too well known to take up time and space; suffice it to say, that all syphilitic types are the direct result of the spirochaete, either a diffuse proliferation of connective tissue elements or a circumscribed gumma, or both.

*The Alcoholic Type.*—This type seems to be due to the direct action of alcohol on the liver cells, singly or in groups; as in other classes, there seems to be a primary, slow necrosis followed by a connective tissue fibrosis, hyaline degenerative changes in the smaller bile ducts; a tendency to fatty infiltration, and in many cases a primary enlargement. This type of cirrhosis has been produced in rabbits by the administration of alcohol on an empty stomach. The animals gained in weight and seemed well until the time they were killed and examined. Experimentally this does not bear out the contention that there must be an underlying factor that predisposes the liver cells and gives them a selected action for alcohol.



Clinically it is a well-known fact that men who are large eaters, lead a sedentary life and drink strong liquors are more prone to develop the disease than those who eat more temperately and lead an active life.

The disease is by no means uncommon in children; some give an alcoholic history, some syphilitic; others develop the disease who give no history of alcohol or syphilis, and the latter furnishes a large group of Haynot's hypertrophic type. In the alcoholic types we see both atrophic and hypertrophic. Some observers contend that practically all cases are of the hypertrophic beginning.

In the vast majority of all types it has been demonstrated that there is a primary necrosis followed by connective tissue proliferations with variable amounts of fatty infiltration and degeneration. The two essential elements in all forms are the destruction of the liver cells and obstruction to portal circulation, and third the toxic factor.

**THE SYMPTOMATOLOGY:** The most extreme grades may exist without symptoms. This is especially true of the atrophic variety; so long as circulation is established there may be little or no inconvenience. The well-known gastric catarrh, especially marked in the morning, furred tongue and constipation, hemorrhage from the stomach and bowels is common. From a review of the literature it would seem to me much commoner than is generally suspected. Presence of blood in the stools may be demonstrated for years before any blood is demonstrated from the stomach.

Epistaxis occurs frequently; hemorrhoids, caput medusae, enlarged veins over the lower thoracic region. Jaundice may or may not be present. It was present in one-third of the cases collected by Rolliston. Generally slight, occasionally deep, later in the disease the hepatic facies becomes very striking; sunken eyes, pinched nose, distended venules over the cheeks; varying types of nevi usually occur on the skin.

Toxic symptoms may come up at any stage. They are

often mistaken for uremia. As a matter of fact it is contended by many that the toxins of uremia are produced in the liver. The general toxic symptoms are nausea, vomiting, stupor, coma, convulsions in the milder cases and mental hebetude.

**Ascites:** Many views are held concerning the true origin of ascites. Hertz believes that tuberculosis is responsible for many cases of ascites and offers several cases as proof of his contention. Joussett is a strong advocate and claims that a large proportion of cases are really tubercular in origin throughout.

Roque and Cordier are certain, after a careful investigation and study of many cases, that every case of ascites in the Laennec type is tuberculous in origin. They believe also that many cases of the Laennec type are due to tuberculosis alone and not to alcohol. Osler does not concur in this view, but still lays much emphasis on the great frequency of tubercular peritonitis associated with cirrhosis of the liver. Rolliston reports tuberculosis in 28 per cent of 706 cases. The hypertrophic type, as described by Haynot, has some features worthy of mention. First, absence of any well established etiological factor. Many cases are seen in children. The vast majority occur in young males. The course is chronic jaundice, slight stools looking bilious, and there is bile in the urine. The conjunctiva is bile stained; attacks of pain in the region of the liver is commonly associated with nausea, vomiting, often mistaken for gall bladder disease. Not infrequently the jaundice deepens after attacks of pain. The spleen is generally enlarged and hard. Osler mentions the conspicuous absence of ascites and reports a case of bleeding from the gums for over a year, and most remarkable attacks of urticaria, pruritus and other skin manifestations, bronzing being quite characteristic.

The capsular form of cirrhosis is regarded as a part of the general process, as chronic interstitial nephritis,

mediastinitis, pericarditis, chronic pleurisy, and especially the dry type, and peritonitis.

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### SOME THOUGHTS ON MIGRAINE, ITS NATURE AND TREATMENT.

BY WILLIAM E. FITCH, M.D., EDITOR OF PEDIATRICS, AUTHOR OF THE NEW POCKET FORMULARY.

**SYNONYMS:** Hemicrania, Megrim, sick headache, billious headache, paroxysmal headache.

**DEFINITION:** Migraine or hemicrania is more than sick headache; it is a constitutional neurosis, associated with violent paroxysms of pain, usually unilateral and confined to the course of the fifth nerve, and frequently accompanied by other sensory disorders, and with nausea or vomiting, vasomotor disturbances and possible mental depression.

**EXCITING CAUSES:** We are still in the dark as to the special nature of migraine—that is, of the kind or the place of the change which forms the basis of the clinical symptoms, but still we are forced to the conclusion that the chief errors of living that induce migraine are: (1) Too little exercise in the open air; (2) constipation; (3) food too rich in proteid; (4) too much brain fag and worry; (5) intestinal intoxication and putrefaction; (6) too concentrated visual attention—constant reading or witnessing moving picture shows. The predisposing causes are dental caries, abnormal intranasal and nasopharyngeal conditions and errors of refraction.

**PATHOLOGY.** While this malady possesses no morbid anatomy, an accepted view, held by many neurologists, is that a vasomotor spasm occurs—followed by dilatation causing successively anemia and hyperaemia—which by acting on the nervous tissues cause the headache and various diminution of functions. We believe it is due, in part at least, to the action of some poison developing from time to time in the body, but we do not, as yet, know upon what part of the nervous system this poison may act; we can

merely conjecture that the place of irritation is located in the cortex or deeper parts of the brain.

Rachford (1) holds: (a) that autointoxication is the essential feature in every case; (b) that under normal conditions the liver is able to destroy or convert the poisons which produce migraine into harmless products; (c) any incompetency of the liver allows an excess of poisons to be produced; (d) any condition aggravating hepatic incompetency permits a greater volume of poisons to filter through the general circulation, producing a chronic auto-intoxication; (e) faulty albuminoid metabolism, either in the tissues or intestines, becomes an exciting cause; and (f) intestinal fermentation and putrefaction are also potent causative factors.

Herter (2) regards migraine as a toxaemic condition in which the toxins (probably albuminoids) are absorbed into the circulation from the gastro-intestinal canal. In a series of seven of his patients the stomach contents were examined at the height of the paroxysm, and in all there was evidence of complete arrest of the gastric digestion.

**SYMPTOMS.** Migraine commonly begins in childhood, and attacks may be brought on by any excitement, such as preparing for a party. Both sexes are equally subjected to attacks, and it is commonly stated that this neurosis is especially frequent in exceptionally gifted people; this, however, is disproven by clinical evidence which shows that the rich, the poor, the dull-witted, and genius alike suffer from migraine. The clinical characteristics of autotoxic migraine are somewhat as follows: Premonitory symptoms—mental hebetude, somnolence or despondency, extending over a few hours to a day or two, accompanied by such prodromata as dizziness, ringing in the ears and *muscae volitantes*, are not uncommon. Prolonged or continuous reading, sewing or witnessing moving pictures may serve to hasten a migrainous attack. Temporary hemianopsia or scintillating scotoma may be noted lasting from a few minutes to an

hour, followed by the headache, which is sometimes preceded by physical aura, a mental state of dreamy reminiscence, in which the patient appears to view some scene connected with a long past life. In others, again, an excessive sense of well-being and keen appetite may precede the attack by some hours; while in others it is replaced by hemianopsic visions, dreams at night of thrilling fires and general catastrophes. When the paroxysm of pain begins it is continuous, sharp, and boring in character, aggravated by light, noise, or stooping soon follows. Usually the scalp is tender and irritable and neither hair brush nor hairpins can be tolerated. The appetite is completely lost and in a few hours nausea is felt. The vomitus at first consists of the contents of the stomach, then mucous and bile, the bile being due to retrostalsis of the stomach; the emptying of the stomach is usually followed by sleep and temporary relief from pain. Another rare symptom occurring when the patient is left-sided is transient aphasia. The patient's general condition is almost always greatly disturbed, the whole course of migraine is very chronic, and may last for years, and we must be very guarded in our prognosis.

**TREATMENT.** *For the attack* rest in bed in a quiet, darkened room as soon as the premonitory symptoms appear, the diet and mode of life should be carefully inquired into and corrected. Intranasal and pharyngeal conditions, as well as errors of refraction, should have appropriate treatment; if neurotic symptoms are present, emotional disturbances are to be avoided. All possible errors of reflex irritation must be removed, and *above all* the condition of the bowels should be carefully investigated. The gastrointestinal tract must be put in good condition and all food liable to increase intestinal fermentation must be restricted. When the pain is severe and excruciating, it may be necessary to administer morphine hypodermically; if not so severe, antipyrine with citrate of caffein or sodium salicylate may be substituted for the antipyrine; following the

"attack" the routine treatment outlined below will control the paroxysms of pain. The painstaking management of the attack will avail but little if the proper dietetic and hygienic measures are overlooked. The most judicious dietetic advice is *moderation*, as most migrainous patients are high livers, which tendency must be restrained, especially coffee, alcohol, red meats, and sweets, for a time at least. This class of patients may be allowed eggs, fish, oysters, poultry, cereals, fruits, and well-prepared vegetables, and unless you emphasize this dietetic advice to your patient, you need not expect the medical treatment to be all that you wish.

*The Medical Treatment* of this condition, as is usually taught, is found inadequate, and being quite perplexed over a very exasperating case, my attention was called to the plan of treatment outlined by Dr. B. K. Rachford, of Cincinnati. I determined to use his formulæ and plan of treatment, with which I have had most satisfactory results. Since we have to deal with a chronic constitutional disease, it is quite evident that the plan of treatment should be as simple and palatable as possible, working with this idea uppermost, Dr. Rachford devised the following prescription:

|   |            |
|---|------------|
| Sodii sulphatis (dry).....                | gr. XXX.   |
| Sodii salicylatis (from wintergreen)..... | gr. X.     |
| Magnesia sulphatis .....                  | gr. L.     |
| Lithia benzoatis .....                    | gr. V.     |
| Tinct. nucis vomicæ.....                  | gtts. III. |

He formerly had this put in large quantities in siphon bottles and charged with carbonic acid, a half a glass of this carbonated mixture representing the above formulæ.

In studying the component parts of this prescription we find that sodium sulphate exerts a cholagogic action; sodium salicylates (wintergreen) acts as an internal antiseptic and increases the functional activity of the liver. Magnesium sulphate exerts a special action on the mucous

membrane of the duodenum, and causes free watery discharges, unloading the portal circulation, and together with the sodium sulphate aids in the elimination of poisons by way of the intestinal tract. Lithium benzoate probably acts as an intestinal antiseptic and in part as an eliminator through the kidneys. The nux vomica disguises the soapy taste of the formulæ, and at the same time exerts its physiological action upon the motor nerves, increasing muscular activity and toning up the nervous system.

While giving Dr. Rachford and others pleasing results, the dispensing of this prescription from siphon bottles was not practical and very expensive, but the popularity of the formula became so great that a method of ready dispensing was demanded by the profession. These requirements were met by the scientific department of a local chemical house, (3) who produced the formula as a Granular Effervescing Sodium Salicylate Compound, known as Akaralgia. A heaping desert spoonful, dissolved in four ounces of water, representing the dose of the original siphon bottle formula.

Clinical reports sometimes convey a more vivid picture than a general description with its necessary qualifications, but in a disease like Migraine, whose diagnosis is not difficult of recognition, and the large number of cases observed, reports *in extenso* are out of the question, since brevity with succinctness is the desideratum. I have thought it best to give my experience in a few words.

I have used Dr. Rachford's prescription with the most pleasing results in Migraine, accompanying *Malarial intoxication* with billious symptoms predominating. I have also used it with most satisfactory results in the *Migraine of constipation*, in the "*sick headache*" accompanying a *billious attack*, as well as in Migrainous attacks from absorption of the *poisonous products of proteid digestion*, and in *auto-intestinal intoxication* from the *toxaemia of intestinal stasis and intestinal putrefaction*.

The writer has had frequent occasions, during the past

year, both in private and in institutional practice, to prescribe Akaralgia in the treatment of Migraine from a variety of causes, and with almost, without an exception, more universally satisfactory results than ever obtained with any other remedy or combination of remedies, and with Dr. Rachford the writer believes this special combination of remedies furnishes one of the most dependable remedies for the relief of Migrainous symptoms that can be found in the whole range of therapeutics.

## BIBLIOGRAPHY.

1. *Medical News*, October 3, 1903.  
*Therapeutic Digest*, September, 1904.
  2. *Journal of Nervous and Mental Diseases*, January, 1897.
  - (3) William S. Merrell Chemical Co.
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**Obituary.**

## JOSEPH D. BRYANT, M.D.

A solemn incident marked the first day's session, April 9, 1914, of the American Surgical Association—its attendance, in a body, at the funeral of its late member, Joseph D. Bryant, for many years professor of surgery at the Bellevue Medical School and Surgeon to Bellevue Hospital, New York.

Dr. Bryant was more than an eminent surgeon and an admired teacher. He was an organizer and a respected councilor in hospital, university, medical association, military and public health affairs, vigorous, upstanding and broad-spirited. A mere list of the offices he had held, in addition to his academic and clinical positions, will indicate the breadth of his interests and the respect he inspired in their pursuit: President of the New York Academy of Medicine, of the New York State Medical Association, of the Medical Society of the State of New York, of the Amer-



ican Medical Association; Health Commissioner of the City of New York, and of the State of New York; Surgeon-General (Brigadier-General) of the National Guard of the State of New York. Dr. Bryant was a national figure, as the close friend and medical adviser of President Cleveland and, on his own account, for the vigorous manner in which as State Health Commissioner in the early nineties, he stopped a threatened importation of cholera that had alarmed the whole country.

Two large works especially mark Dr. Bryant's contributions to American medical literature, his excellent two-volume treatise on Operative Surgery and the eight-volume System of Surgery which he edited with Prof. Albert Buck.—*W. M. B., in American Journal of Surgery.*

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## Editorial.

### THE AMERICAN MEDICAL ASSOCIATION.

The sixty-fifth annual session of the American Medical Association will be held at Atlantic City, N. J., June 22-26, 1914.

The House of Delegates will convene at 10 A. M., Monday, June 22.

The general meeting, which constitutes the opening exercises of the Scientific Assembly of the Association, will be held at 10:30 A. M., Tuesday, June 23. The various sections will meet Tuesday at 2 P. M., and subsequently, according to their programs, on Wednesday and Thursday, June 24 and 25, and in some cases also on Friday morning, June 26.

The Registration Department will be open from 8:30 A. M., until 5:30 P. M., on Monday, Tuesday, Wednesday and Thursday, June 22, 23, 24 and 25, and from 9 to 10 A. M., on Friday, June 26.

There are more than 100 large hotels and 900 smaller ones in Atlantic City. Besides these, numerous boarding-houses cater to the comfort of the visiting public. Atlantic City is in a class with New York, Boston and Chicago in the superiority of its hotel accommodations, and the beach-front hotels are equal to those anywhere in appointments, cuisine and service. Many of these hotels are palaces in appointments and furnishings, maintain splendid orchestras and vie in securing the comfort of their guests. Atlantic City is fortunate in its proximity to three great cities. There is an excellent train service

to these points and through them to all points throughout United States and Canada.

Although Atlantic City is a city of hotels, and can easily accommodate those in attendance on the annual session, Fellows are urged to make their hotel reservations early. It will be a great comfort on arriving at Atlantic City to go at once to a hotel which is expecting you rather than to make a round of hotels, finding a number of them completely filled and finally being compelled to take the first lodgings which can be found in a hurried personal search. *The Jour. A. M. A.*, for May 16th, gives a full list of the hotels with rates—both American and European plan.

The Southwestern Passenger Association calls attention to the summer tourist fares which are in effect from practically all points in this territory to Atlantic City at the time the session is held. These fares are on the basis of 2 cents per mile, with long limits.

The scientific program, to be found in *The Jour. A. M. A.*, above cited, is rich and varied. Of the 260 authors mentioned, we find less than 20 from the South, with only one from Tennessee. This is not as it should be; however, we hope this will be made up in attendance at the meeting.

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#### A BLAST FROM "PUCKY'S BAZOO"—*in re* BROMIDIA.

In "*The Propaganda for Reform*" in the *Jour. A. M. A.*, Vol. LXVII., No. 20, May 16, 1914, p. 1573, W. A. Puckner, Secretary of the Council on Chemistry and Pharmacy, gives a report from "a member of its committee on Therapeutics"—whose name is not given, more is the pity, in regard to a preparation that has been most satisfactorily used for many years by many of the ablest members of the medical profession in America and *elsewhere*, and that has long been regarded as a "*standard*." More than a third of a century ago it was first suggested to the writer in a consultation case by the late W. K. Bowling, M. D., later by other able and reputable practitioners of this vicinity, and well remembered is a conversation with the late N. S. Davis, M. D., of Chicago, when in Atlanta, Ga., at the last meeting of the National Association in that city, in which he advised its use as an admirable hypnotic and sedative in a case I referred to him.

The two cases of death from an overdose, the possibilities of acquiring the "Bromidia" habit, and the case of the "prodigal son," who was weak and had suffered from a weak heart and kidney trouble for some time," whose "father, a Brooklyn physician," should have known that "The mixture of Potassium Bromide and Chloral is very unsafe in cases where fatty or weak heart exists, both drugs being active cardiac depressants," (*Potter, Materia Medica, Pharmacy and Therapeutics*), will "cut no ice" with those who have the capacity to

think for themselves, any more than the dangerous possibilities of Tr. Opii Camph., Fl. Ext. Belladonna, Tr. Aconite, or any other form of narcotic or sedative drug. As to the chloral constituent, surely those who are qualified to practice medicine are aware of the effects of this particular drug and will not use it recklessly, and the definite statement as to the amount of this ingredient contained in Bromidia from the printed statements of its manufacturers, is as well known as is the amount of opium in Paregoric, Laudanum, McMunn's Elixir or Dover's Powder.

The labored and gratuitous effort of this anonymous reporter occupying a page and a half in the *Jour. A. M. A.*, might very well have been condensed into something like the following: "*Bromidia*, a well known proprietary preparation, containing definite amounts of Potassium Bromide and Chloral Hydrate—*aa.* gr. xv., and Ext. Cannabis Indica and Tr. Hyoscyamus—1-8 gr. each, a sedative and hypnotic, of great value in cases in which opium and other similar drugs are contraindicated, satisfactorily used by many of the ablest practitioners of medicine and surgery, as well as in both public and private institutions for the care of the insane and other nervous conditions."

The labored and ephemeral diatribe of this would be erudite member of the Council on C. & P. may have some effect on neophytes, whose efforts may to some extent be handicapped in practice, at least until they learn to think and observe for themselves; but will have no influence on that large body of regular practitioners who have observed and who know the effects of this preparation, any of whom on reading the article will consider it as assinine as the incorrect statements made as to The Hypophosphites in the *Jour. A. M. A.*, April 25th, 1914, p. 1346.

As to the sophomoric suggestion in the concluding paragraph in this "Report" of the Council on C. & P., as to giving the proper doses of either chloral or a bromid, dissolved in Aqua Cinnamomi, Syr. Aurantii, Elixir Aromaticum or "*Elixir Adjuvans*," (italics ours, as we have never before learned anything of this particular menstruum), we will say that it will be very difficult to get a patient to take a second dose if given in only a fluidrachm of either of these menstrea.

Finally, the small *perSimmons* in his "EDITOR'S NOTE," might well have added to the thirty-six "medical journals that advertise Bromidia," a few others that have advertised it, such as *The Journal of the American Medical Association*, when it was edited by far more reputable and honorable men than he, together with the *N. Y. Medical Record*, the *N. Y. Medical Journal*, and others; and that we can but feel ourselves honored by being placed in the company of such men as L. S. Pilcher of New York, Briggs of Nashville, Danl's of the "Red Back," H. W. Coe, of Oregon, Chassaignac and Dyer of New Orleans,

Tuley of Louisville, and others of like standing both professionally and socially.

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#### THE DEATH RATE OF THE UNITED STATES FOR 1913.

The death rate of the registration area of the United States in 1913 was 14.1 per 1,000 estimated population, according to a statement made public by Director William J. Harris, of the Bureau of the Census, Department of Commerce. This statement was prepared under the supervision of Dr. Cressy L. Wilbur, of the division of vital statistics. This figure of 14.1 as the death rate for 1913 was based on 890,823 deaths returned from 24 registration states, the District of Columbia, and 41 cities in nonregistration states. The total population included in the registration areas reporting is 63,299,164, or 65.1 per cent of the estimated population of the United States. While the figures are not complete for the entire country, they serve as an index to the general sanitary condition of the United States. Virginia is included for the first time in the national vital statistics, as the result of the passage of a registration law in that state in 1912, and the Bureau of the Census is actively cooperating with officials in other states so that the entire country may be included in the area having effective registration at the earliest possible date.

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IS YOUR ICE BOX SAFE?—In the June *Woman's Home Companion* Walter Peet, a physician, writes an article entitled "The Safe Ice Box." Following is an extract:

"The home ice box is a most important factor in maintaining the family health, and may be a decided menace to it if it is not properly looked after.

"It is poor economy to get a small amount of ice; a large supply put in at one time and completely filling the ice compartment will last longer than the same amount supplied in daily small portions.

"The refrigerator should be washed thoroughly once a week. Remove all the fixtures, including the drain pipe. Use a strong solution of carbonate of soda (washing soda) with no soap. Get into all the corners and crevices with a small brush, and use a large brush and cloths for the flat surfaces. Next scald out with boiling water, reaching every point of the interior and, finally, thoroughly rinse with cold water in order again to cool the interior. Leave all the doors open for a good airing.

"Wash the fixtures and drain pipe in the same manner, using a long wire-handled round brush for the inside of the drain pipe. If the fixtures are not too large and the drain pipe is in sections, it is well also to put them in the clothes boiler and boiling washing soda solution.

"It is important, also, regularly to look after the stationary drip pan and the pipe leading from it.

"The pan should be washed and its pipe flushed with a strong solution of lye.

"The ice should be thoroughly washed after it comes from the ice man, for it often has loose dirt clinging to it. Put it into the sink; turn on the faucet full and be certain that the water reaches each of the six sides of the cube!"

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**HEMOPHILIA AND OTHER HEMORRHAGIC CONDITIONS:**—Coagulose is a sterile, soluble, anhydrous powder, obtained by precipitating normal blood serum. It contains the fibrin ferment necessary for clotting the blood, and is readily soluble in cold water at concentrations two or three times that of the original serum.

It is beyond the slightest question that most cases of persistent hemorrhage may be controlled by the hypodermatic injection of Coagulose; that the latter is *much more active* (whether injected or applied, locally as a styptic to bleeding surfaces) than the blood serum whence it is produced; that it is readily available, easily applied, and apparently non-toxic; and that it retains its power for at least two years, whereas the natural blood-serum very soon becomes inert.

**Therapeutic Indications:** All cases of hemorrhage due to defective clotting of the blood, as seen in purpura, hemorrhage of the new-born, nasal hemorrhage, hemorrhage from gastric or duodenal ulcer, pulmonary hemorrhage, hemorrhage during and after prostatectomy, hemorrhage from the kidney pelvis, hemorrhage from the bladder, uterine hemorrhage, and hemorrhages after turbinectomies and tonsillectomies.

The manufacturers, Messrs. Parke, Davis & Co., standardize every lot of Coagulose by determining the rapidity with which sera and solutions of precipitated sera at comparable concentrations cause coagulation of citrated blood plasma, and guarantee the purity and sterility of the product.

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**THE NERVOUSNESS OF ALCOHOLISM:**—In the unstable nervous states following alcoholic debauches—irritability, sleeplessness, etc.—Bromidia (Battle) will be found an agent of exceptional influence in bringing about a disappearance of the symptoms. It exerts a soothing effect upon the cerebro-spinal centres and secures rest for the patient.

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**THE MISSISSIPPI STATE MEDICAL ASSOCIATION** at its annual meeting, held in Columbus, Miss., April 13th, ult., elected J. S. Ullman, M. D., of Natchez, President; the meeting in 1915 to be held in Hattiesburg.

**A HIGH-POTENCY DIASTASE:**—The doubling of the liquefying power of Taka-Diastase, through recent improvements in the process of manufacture, as announced by Parke, Davis & Co., lifts this agent into a position of commanding eminence as a diastasic ferment. So potent is this improved diastase that in ten minutes, under conditions of temperature and moisture corresponding to those existing in the normal stomach, it will liquefy three hundred times its weight of starch.

For the information of physicians who are unfamiliar with its nature and origin, it may be said that Taka-Diastase is obtained from the fungus *Aspergillus oryzae*, which from time immemorial has been used in Japan for the saccharifying of rice. This fungus contains not merely an amylase, but a mixture of various enzymes. It possesses amylolytic power to a much greater degree than any of the other species of the *Aspergillus* family.

Taka-Diastase is serviceable in the treatment of amylaceous dyspepsia, in chronic gastritis, in hyperacidity, in the vomiting of pregnancy, in infantile diarrhea and dysentery. It may be prescribed in liquid, powder, tablet and capsule forms, also in combination with other agents in capsules and tablets. It should be taken during or immediately after meals in order that it may act upon the starches in the stomach before the acid wave sets in.

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**SAMUEL D. GROSS PRIZE:**—The committee having in charge the Samuel D. Gross prize, valued at \$1,500, of the Philadelphia Academy of Surgery, announces essays in competition for the prize will be received until January 1, 1915. The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded on original investigations, the candidates for the prize to be American citizens." It is expressly stipulated that the competitor who receives the prize, shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page, it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery. The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22d St., Philadelphia," on or before January 1, 1915. Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer.

LONG AND FAITHFUL SERVICE RECOGNIZED:—"As a tribute to the memory and to the faithful services of the late Secretary of the Medical Society of Virginia, the medical profession throughout the State has united in the erection of a monument over the grave in Hollywood Cemetery of Dr. Landon B. Edwards, for many years one of the best known physicians of Richmond.

In crossing life's span it is seldom that one is given to know the esteem in which he is held by his associates and co-workers. Such, however, was the privilege of Dr. Landon B. Edwards, who, at Roanoke in 1909, just after his election as Secretary of the Medical Society of Virginia for the *fortieth time*, was accorded an unusual ovation and presented with a bag of \$1,000 in gold as an expression of regard by Virginia doctors.

Friends who honored him then have seen fit now to pay further tribute, and have placed over his grave in Hollywood Cemetery a handsome granite monument.

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PANOPEPTON:—A Food "*of substance*."—There is food substance in Panopepton, the real food substance of lean beef and whole meat, made perfectly soluble under the action of physiological principles applied under physiological conditions.

The various complex protein substances of Panopepton (meat and cereal) are in a large part reduced to ultimate cleavage, ready to be appropriated for "cell building"; the carbohydrate is likewise, by physiological conversion, fitted for immediate appropriation; the two combined and presented in a sterile solution of unusual agreeability.

That the 24% total solids of Panopepton are all vitally essential in nutrition and all physiologically available for nutrition are facts which have been long established by chemical and clinical investigation.

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DANGER DUE TO SUBSTITUTION:—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The more recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

**ELIMINATION:**—To relieve the digestive tract of those waste products which tend to clog and load the system and encourage auto-intoxication, Pil. Cascara Comp. (Robins) will be found most efficacious.

Each pill contains: Cascara, 1-2 gr.; Podophyllin, 1-16 gr.; Colocynth, 1-4 gr. and Hyoscyamus, 1-12 gr. These pills encourage normal peristaltic action and do not leave the intestines in a state of atony.

They stimulate a flow of secretions, thus encouraging a normal physiological evacuation.

Write A. H. Robins Co., Richmond, Va., for a trial package. This is the best way to convince yourself of their superior therapeutic properties.

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**AN IDEAL, EFFERVESCENT LAXATIVE TABLET:**—How often have you instructed your patient as to a particular laxative-cathartic, and how many times have you been disappointed in the results from your prescription because of the failure to obtain results from the evacuant? There is now offered the medical profession an exceptionally pleasant and agreeable cathartic called *Citrolax*—an effervescing tablet—an ideal laxative-cathartic without excessive peristalsis, producing as nearly as possible complete defecation. If you have not had an opportunity to try this excellent combination, read their advertisement in this issue and send for samples.

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**A SAFE AND EFFECTIVE SOMNIFACIENT:**—A soporific agent of particular therapeutic worth and one especially indicated in women and children by reason of its freedom from danger and disagreeable after-effects is Pasadyne (Daniel).

Pasadyne is a concentrated tincture of *Passiflora incarnata* and has been prepared by the same firm for more than thirty-five years. This preparation will be found of reliable worth in all nervous states. A sample bottle may be had by addressing the laboratory of John B. Daniel, 34 Wall Street, Atlanta, Georgia.

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**THE AMERICAN PROCTOLOGIC SOCIETY** will hold its sixteenth annual meeting in Atlantic City, N. J., June 22 and 23, 1914. Dr. Joseph M. Mathews, of Louisville, Ky., is the President, and Alfred J. Zobel, 518 Shreve Building, San Francisco, Cal., Secretary. The headquarters and place of meeting is the Hotel Chalfonte.

In addition to the address of the President on "*The Future of Procto-Enterology*," a series of 23 papers, are on the preliminary program, from able and progressive specialists, considering important and live subjects in Proctology.



**CONDITIONS OF REDUCED VITALITY:**—It is especially in states of lowered vitality following continued application of whatsoever character marked by loss in bodily strength and nervous force, that Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is of more than ordinary value. It is not alone a tissue food but also serves as a nerve tonic. A distinctive feature possessed by the cordial is its palatability, an advantage appreciated particularly by women and children.

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**DEPENDABLE SALINES:**—Mixed salines are proving their worth, just as have mixtures of other laxatives. Making mixed saline laxatives in effervescent form adds to their comfort in administration. Sal Hepatica is such a product, and it is daily proving its worth. Write to Bristol-Myers Co., 277-281 Greene avenue, Brooklyn, N. Y. Mention *The Southern Practitioner* and a free sample will be sent to you.

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**THE SOUTH CAROLINA MEDICAL ASSOCIATION** at its annual meeting in April, elected Dr. E. F. Parker, Charleston, President, and re-elected Dr. E. A. Hines, Seneca, Secretary-Treasurer. The next meeting will be held at Greenwood, in April, 1915.

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**THE MEDICAL ASSOCIATION OF GEORGIA** at its annual meeting in Atlanta, in April, selected Macon for the next place of meeting, and elected Dr. W. B. Hardman, Commerce, Ga., President, and Dr. W. C. Lyle, Augusta, Secretary-Treasurer.

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## Reviews and Book Notices

**THE NARCOTIC DRUG DISEASES AND ALLIED AILMENTS; PATHOLOGY, PATHOGENESIS AND TREATMENT.** By Geo. E. Pettey, M.D., Memphis, Tenn., Member of Memphis and Shelby County Med. Society; Tenn. State, American Medical, Tri-State, Mississippi Valley, and Southern Medical Associations, Etc., Etc. 8 vo. cloth, pp. 516, illustrated. F. A. Davis Co., Publishers, Philadelphia, 1913. Price, \$5.00.

The conviction, reinforced by long experience, that drug habitues are, in most cases, the blameless victims of disease, not only meriting sympathy and consideration, but entitled to skilful and rational medical aid, such as is rendered to sufferers from other physical ailments is the correct view of the author, who has given us the benefit of wide and practical experience in the management of these unfortunates.

This volume treats narcotic addiction strictly as a disease, a toxemia, due to drug, auto and intestinal origin, the management and treatment most properly belonging to internal medicine, as well as, if not far more, than to neurology.

The vital and essential principle of treatment advocated is elimination, and this method, with all its auxiliaries, is presented in full detail, furnishing a rational basis for scientific medication and humane management of these unfortunate cases.

Considerable space is devoted to the treatment of acute ailments in narcotic and alcoholic subjects, as well as due consideration to the withdrawal of narcotics after prolonged use in acute illness, the management of infants born of drug using mothers, the treatment delirium tremens, and sobering up of the victims of acute alcoholism.

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A HISTORY OF LARYNGOLOGY AND RHINOLOGY. By Jonathan Wright, M.D., Director of the Department of Laboratories, New York Post-Graduate Medical School and Hospital. Second Edition, Revised and Enlarged. Octavo, 357 pages, illustrated. Cloth, \$4.00, *net*. Lea & Febiger, Philadelphia and New York, 1914.

This book belongs to the type of medical books which is but rarely published, and then only in limited editions, which appeals to the physician for its literary and historic value rather than for its practical usefulness in his everyday professional life. It is a book which will afford him pleasure and recreation in his leisure hours, and from which, nevertheless, he will obtain much that will be of value to him in his daily routine. It will broaden his point of view, and give him a better perspective, not only of the specialty in which he may be engaged, but also of all branches of medicine, to see how the particular department reviewed herein has grown from crude beginnings to one of the most highly perfected of all the specialties. The author is not only a gentleman of eminence in the medical world, but also a litterateur and a historian, and he has portrayed his subject in an interesting and charming style. Beginning with

Egyptian Medicine, and continuing until the advent of modern procedures, Dr. Wright has given the reader a story full of entertainment and historic interest.

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THE PATHOGENESIS OF SALVERSAN FATALITIES, by Sanitas- Rat Dr. Wilhelm Wechsellmann, Directing Physician to the Virchow Hospital in Berlin. Authorized Translation by Clarence Martin, M.D., First Lieut. M. R. C., U. S. A., late Clinical Assistant St. Peter's Hospital for Stone and other Urinary Diseases, London; Member Association Military Surgeons, and of the Berlin Urological Society, etc. 8 vo. cloth, pp. 143, price, \$1.50, postpaid. The Fleming-Smith Co., Publishers, St. Louis, Mo. 1914.

The very extended use of Wehrlich's important contribution to therapeutics, and the occasional cases terminating fatally render this little volume a very valuable addition to the medical literature of the day. It expresses the last views of Dr. Wechsellmann on the causes of Salvarsan fatalities, he having had the largest experience of any man in the world in connection with this valuable remedy, and for this reason, as well as for his recognized ability, the conclusions found in the work are most worthy of consideration. It contains the most careful and serious considerations and investigations into the underlying factors operative in the fatal cases.

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TREATMENT OF CHRONIC LEG ULCERS, A PRACTICAL GUIDE TO ITS SYMPTOMATOLOGY, DIAGNOSIS AND TREATMENT. By Dr. Edward Adams. 122 pages. Cloth, \$1.00. Published by The International Journal of Surgery Company, 100 William Street, New York City.

"Of the making of books there is no end," but there surely is a place for this most excellent little monograph so satisfactorily considering one of the "*betes noir*" of the physician and surgeon. The limited space given to Chronic Leg Ulcers in the standard works, both recent and ancient; the annoying slowness of repair render this most excellent brochure especially valuable.

While the work is, to a large extent, an expression of the views and personal observations of the author in hospital

and private practice, he has omitted nothing which might conduce to a more successful management of these frequently too obstinate cases. His methods of treatment embrace the most recent accepted views.

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## Selections

**CHANGING VIEWS ON PELLAGRA :—**When the unusual frequency of pellagra in various sections of this country awakened general interest in the disease, an almost universal opinion prevailed that maize was the cause of the disease. The investigation was directed at the element in corn products which might be held responsible. In the South, many persons who had eaten corn in all forms became abstinent as far as this food was concerned.

The prevalence of the disease outside of the larger cities and mostly among those living in country districts caused some revision of the earlier views, still, however, entertained among those who studied pellagra at first hand in the asylums for the insane. Perhaps the historical picture of pellagra had much to do with professional opinion. Barring a few of the French observers, the almost unanimous opinion of those who had worked among pellagrins for over two hundred years had been in favor of diseased or immature grain as the causal factor.

The experience with the disease in the United States has thrown several new lights on the question. It is established that the removal of pellagrins to greater altitudes and a cooler climate will ameliorate their condition and often will cure them. The study of the epidemiology of the disease around Spartanburg, S. C., has pointed conclusively to environmental influences which provoke a larger incidence among those who are constantly in the house (as the women and children); more than this, the cases are grouped in districts and the disease has seemed to travel along certain topographical lines. Season has much to do with the fre-

quency of pellagra, as it develops more in summer than in winter; but, whatever the cause may be, the cases which develop at any season go to argue that the cause does not hibernate.

The zeistic theory of pellagra is not yet out of the debate, for there is still the open question as to whether the starting point of pellagra may be in the human being.

Sambon has strongly advanced the Simulium as the transmitter of pellagra, but the breed is unknown in many sections of America where pellagra is present and on the increase. This sand fly may be only one of the agents of transmission and that other insects may serve the same end.

The cutaneous evidences of pellagra are consistently progressive in their organized method of appearance and argue some profound systemic, toxic cause. The associated membrane involvement, moving on to the meninges, argues more than a simple inflammation.

Meantime experimental research has developed in the matter of the possible contagiousness of pellagra, beginning with the theory that the disease is due to an organism. The most decisive work so far published has been presented by W. H. Harris, from the Department of Pathology at Tulane. He has employed a filtered virus derived from the human subject and inoculated in monkeys. The virus has been successively recovered from two monkeys and transmitted to the third monkey, each of the three developing all of the intestinal, dermatological and nerve evidences of pellagra, without any special attention having been paid to the diet.

The organism is so far elusive and the element of error constant, for monkeys are prone to dermatological affections, often misleading, as suggested by the observations of the Illinois Commission, which at one time believed some of their monkeys were developing pellagra. The whole subject is one of keen interest, and the dermatologist especially has the opportunity to bring about some of the evolution of ideas in the disease.

The therapy in pellagra still remains chaotic, with salvarsan vaunted, arsenic in common use, a large number of other remedies suggested, and with a customary prognosis of a large mortality. The wider the disease areas grow, however, the more mild the disease appears, and, therefore, the more persons are cured. The likelihood of any specific treatment will be uncertain until the causal factor is apprehended, and it is to be hoped that American genius may find the way to add this discovery to its many achievements in recent years.—*Editorial, Jour. Cutaneous Diseases, February, 1914.*

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ANOTHER CLEAN RECORD IN THE CANAL ZONE:—In the *Journal* for October 25, 1913, the report of the department of sanitation of the Isthmian Canal Commission for September was reviewed,\* showing that during that month not a single white man, woman, or child from the United States had died from disease on the Canal Zone. The report for February, 1914, shows that another record has been established. During that month there were 7,592 white employees. Among this number, equal to the population of a good-sized city, there was not a single death from disease during the month. Two white employees were killed by accident, one by electric shock and the other by injury received on the railroad, but no white employee, either American or foreign, died from disease during that time. As might be expected, the death-rate among other classes was equally low. Of the 5,309 white employees from the United States, there was only a single death by violence. Of the 3,875 white women and children from the United States, there was one death from accidental drowning and three from disease. One, a child of 4 years, died of diarrhea; another, a woman of 70, died of old age, and a third, a woman of 44, died of pulmonary tuberculosis. Out of a

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\*A Clean Record in the Canal Zone, Current Comment, *THE JOUR. A. M. A.*, Oct. 25, 1913, p. 1544.

total of 9,184 white American employees and their families, there were only three deaths from disease and two from violence, while among the total 10,963 Americans on the Canal Zone, there was only a single additional death from violence, making a total of six deaths for the month among nearly eleven thousand persons, equal to an annual average death rate of 6.56 per thousand. Nor are the benefits of improved sanitary conditions limited to white employees and their families. In February, 1914, there were 41,867 colored employees, and among this number there were only twenty-two deaths from disease and six deaths from violence, making an average death rate per thousand from disease of 6.31, equivalent to a total annual average death rate, for the entire 49,459 employees, of 5.34 per thousand. Of the twenty-two deaths, four were from pneumonia, seven from tuberculosis, and one each from organic disease of the heart and typhoid fever, leaving nine deaths from all other disease. After living for five or six years amid conditions which have produced such a startling reduction in death rate, will the men who have dug the Panama Canal be able to find any city in the United States which is sufficiently cleanly and healthy for them to live in? Let us hope that the ten thousand Americans, returning to this country after a practical demonstration of what modern scientific knowledge can do to prevent disease, may prove to be the little leaven which will leaven the entire lump. If this is the case, the indirect benefits of the Panama Canal will be incomparably greater than its commercial or military value.—*Journal A. M. A., Current Comment, May 9, 1914, page 1981.*

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**THE ACID INTOXICATIONS:**—In spite of the great amount of research and the advances made in the knowledge of the processes of metabolism and of their perversions, as well as in the causation of the intoxication, says the *New York Medical Journal*, little is yet known that seems to be of lasting definiteness.

The best known of the autointoxications are the acid intoxications, the acidosis. Experimentally these can be produced by feeding an alkali and ash free diet, when the sulphuric and phosphoric acids must combine with the fixed atoms of the body tissues. Here also in attempting to neutralize the acid condition ammonia is withdrawn from the urea content, giving a high ammonia content, so that the amount of "acetone bodies"—acetone, diacetic acid and beta oxybutyric acid—can be gauged by it. The most important and common condition in which these acetone bodies are found is diabetes mellitus. The acetone found here is believed to be due to an incomplete oxidation of food, particularly the fats and in all likelihood also the proteids, and a lessening in the utilizing power for the carbohydrates. Carbohydrates act as an intermediary to the burning up of acetone into carbon dioxide and water; in other words, it is normally a catalytic agent. This principle accounts for the likelihood of the strict withdrawal of carbohydrates, in the treatment of diabetes mellitus, causing the production of the acetone bodies, and is the reason why, on the supervention of the acetone condition, that carbohydrates are given, so that even though there is a defective utilization of them, they will by sheer quantity force the utilization of some of the carbohydrate for this intermediary capacity. The sugar utilizing power is controlled by the pancreas in its role as an organ of internal secretion, this power lying in the islands of Langerhans. It is further believed that the pancreas inhibits the output of sugar so as to be within the utilizing power, and that the adrenals are acceleratory in this respect.

While the acetone bodies are commonly associated only with diabetes, they are found in other conditions in which the sugar output is not a feature. Of these the toxemia of pregnancy is the most important, and is receiving a great deal of study. Here also the ammonia content is high. The symptoms include mental torpor and somno-



lence, while coma, though it occurs, is not common. Other conditions, such as fasting, certain febrile conditions, carcinomatous cachexias, some psychoses, etc., show acetone, which it is believed is due to diminished carbohydrate utilization, caused, however, by the diminution of all the body functions.

The acetone bodies have also been mentioned as causative toxic factors in such little understood conditions as migraine in adults and cyclic vomiting, its prototype in infancy. And while the dietary indications in the treatment of these conditions seems to point in that direction, yet the nervous or neurotic theory of causation is most commonly held.—*Medical Review.*

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THE OTHER SIDE OF THE ANTI-PROPRIETARY PROPAGANDA :  
—Have you ever noticed that for practically every proprietary shunned, there is a substitute offered, either in the U. S. P. or N. F.? If these agents are not worthy as proprietaries, are they worth while as U. S. P. or N. F. products? We are told not to use several things because of their cost, the argument being offered that, made according to the U. S. P. or N. F. formula, their ingredients are such as to make their cost very slight. No thought, however, is taken as to the time expended in manufacture, which is figured as a part of the costs by every maker of drug products. And your time, or the time of your druggist, is worth just as much as is that of the manufacturing pharmacist. We found, in the manufacture of the articles mentioned above, that our whole cost was practically the same as would have been that of the proprietaries, purchased in their complete form, and at the prices asked by the manufacturers. And then does the druggist charge the patient any less for a U. S. P. or N. F. product than for a proprietary product? Hardly! It is from the former that he derives his greatset profit. The druggist usually has a set price for ordinary prescriptions, from which he rarely varies. He gets so much for a two-ounce, three-ounce, four-

ounce or other prescription, and lets the low-priced ones make up for those of higher price, so that the patient pays just so much regardless of initial cost.

Now as to proprietaries. These may be simple, single drugs, or they may be combinations of several drugs and chemicals. Those who make them have perfected the process of manufacture to a point of nicety in most instances, and the products they offer are, as a rule, superior to all others of like sort on the market. They have invested considerable sums in apparatus whereby to turn out high-class products. They are, as a rule, very careful in the matter of purchase of their ingredients, as well as in their modes of compounding, and in many instances turn out products of a much higher standard than do others who make substitutes. Consequently the originals are worth more, in every way, than are substitutes. And the facts of the matter are, that the large manufacturer can, and does, make goods for less money than can the small maker.

The trouble with the members of the medical profession lies in the fact that they are not, as a rule, trained business men. They fail to take into consideration other than the cost of the ingredients of some of those proprietaries which are pronounced high priced. No reckoning, in the least, is taken of the cost of time in manufacture, or that of handling the goods. Just the simple ingredients are considered, and because they cost so much less, seemingly, than the finished product, fault is found with the makers.—*Editorial in Nevada Medicine.*

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**OIL OF CHENOPODIUM IN HOOKWORM:**—In the *Johns-Hopkins Hospital Bulletin*, May, 1914, Dr. Robert L. Levy concludes a report of a case of Uncinariasis successfully treated with oil of chenopodium, the usual medication with thymol as recommended by the Porto Rican Commission having failed after three trials at weekly intervals, as follows:

"Accordingly, our patient was given the oil of chenopodium according to the directions (slightly modified) of Schuffner and Verwoort (Munchen, med. Wchnschr., 1913, LX., 129). The patient was starved for eight hours, at the end of which period he was given an ounce of Epsom salts. Two hours later, 16 drops of the oil of chenopodium on a teaspoonful of granulated sugar were administered. This dose was repeated at two-hour intervals until three doses had been given. Two hours after the last dose of chenopodium the patient was given an ounce of castor oil and 50 minims of chloroform. On sifting the stools collected during the next 24 hours, 19 hookworms of the Old World type were found. Ova continued to be discharged in the fæces. On repeating the treatment five days later, seven more hookworms were expelled, and this time no ova could subsequently be demonstrated in the stools. However, another course of chenopodium was given, to be sure that no parasites remained; none were expelled. The stools have since been free from ova, and I believe we may consider the patient cured of his intestinal parasitism. He has gained 30 pounds in weight. The blood now shows:

"R. B. C., 4,110,000; W. B. C., 11,00; Hb. (Sahli), 70 per cent. It is of interest that whereas on admission the eosinophiles formed but 7 per cent of the white cells, there is now an eosinophilia of 36 per cent. Such a rise in eosinophile cells the Porto Rican Commission regards as of good prognostic import.

"As compared with thymol as a vermifuge in unciniriasis oil of chenopodium seems to offer certain very definite advantages:

"1. According to Schuffner and Verwoort it is more efficacious.

"2. It is not unpleasant to take.

"3. Its ingestion is not accompanied by any disagreeable after-effects. In a recent article Stiles and Boatwright have pointed out that unpleasant symptoms appeared in over half

of a large series of cases treated with thymol, and carefully observed to determine this very point.

"4. In therapeutic doses it is non-toxic. Thymol occasionally, though rarely, produces symptoms of serious intoxication."

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**TREATMENT OF GASTRIC ULCER:**—Loeper (Progres medical) says that in cases of gastric ulcer in which there is a high degree of intolerance of food, intense pain being usually awakened when anything is ingested, sugar is in many instances the best nutrient available for oral use. Pavloff has shown that sugar does not excite gastric secretion, and it is also known that sugar, introduced into the stomach, passes out from it very rapidly—much more rapidly than even light soups, meat jellies, and especially milk, which leaves the stomach only an hour or more after ingestion. Sugar is, moreover, a readily absorbable and combustible food; 3.5 ounces of it supply 400 to 500 immediately available calories, or as much as 1¼ quart of skimmed milk, six eggs, etc. A patient who had lost 5 kilos. in weight in six days on a diet of milk and starchy products began to gain when an equivalent (only 400 calories) amount of sugar was given. Urine analysis in both man and dogs showed that sugar spares the protein constituents of the tissues better than other carbohydrates, and also spares the fats.

The doctor's patients were given sugar in the amount of about 3.5 ounces per diem, either in a simple syrup or in various fruit syrups, together with fruit jellies, lemonade or orangeade, fresh grape juice, etc. In previously very intolerant cases, all gastric pain, nausea, and vomiting disappeared, and the body weight, as already noted, began to show a gain. In a few instances slight fermentative disturbances were induced, but these were only exceptionally such as to inconvenience the patient. In view of the low percentage of mineral constituent supplied in the sugar diet, it may be advantageous, Loeper points out, to give

the patient also a few powders of sodium and calcium phosphates.

The exclusive sugar diet should not be continued longer than five or six days, as it affords material only for immediate combustion and not for tissue repair. As soon as the gastric condition permits, the amount of sugar should be diminished and a few light articles of food substituted, e. g., carrot or arrowroot bouillons, potato soup, sweetened albumin water, milk soup or diluted milk, later undiluted milk, pastes, meat jelly, fresh fish, and white meats.

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**CYSTOCELE: MOST EFFICIENT METHOD OF REPAIRING:—**  
Cystocele is one of the most common conditions following repeated childbirths, laceration of perineum and pelvic floor, and general pelvic relaxation. Oftentimes vague symptoms of general discomfort in the woman is due to a more or less pronounced cystocele. Even at times when the symptoms of weight and dragging in the pelvic cavity with a sensation of distension of the vulvo-vaginal orifice accompanied by some loss of power in urination are present, we never think of a cystocele being the underlying cause. How often do we see a colpoperineorrhaphy without correcting the anterior wall which is really the seat of the symptoms. For years the repair of the cystocele has been just as unsatisfactory, if not more so, than the posterior repair. About two years ago I instituted the following operation, which has proven entirely satisfactory, and is based upon anatomical principles:

The anterior vaginal wall is exposed and cervix drawn down. The anterior vaginal wall is now split with scissors from the cervix to within one-half inch of the external urinary meatus. It is very important to cut through the entire thickness of the vaginal wall so as to expose the vesicle layer. The incised vaginal walls are dissected back upon each side, using a gauze sponge, until the lateral true ligaments of the bladder are reached. These can be felt

and seen on each side. Using number two chromic gut, sutures are introduced into the ligament of the one side as far down as possible and then across to the other ligament at a like point, two or three others are introduced successively about one-half inch apart. The sutures are then tied, beginning in the order of introduction; this forms a perfect swing for the bladder, which is supported from the pelvic wall, and ligaments that will not relax to the extent that the vaginal wall does. There is no narrowing or contraction of the outlet.

The flaps of the vaginal wall need not be cut away, but stitched together with number one catgut. The excess of tissue soon disappears.—*W. T. Pride, M.D., of Memphis, Tenn., in Medical Review.*

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A NEW SIGN IN ABDOMINAL SURGERY:—E. B. Claybrook reports, *Surgery, Gynecology and Obstetrics*, January, 1914, a "new diagnostic sign in injuries of the abdominal viscera," which should be of inestimable value to the practitioner who first sees a patient in whom there may be a suspicion of internal injury. This sign consists in the transmission of heart and respiratory sounds over the abdomen, they being heard here as well as over the chest. His explanation of the probable cause of the sign is given as an irritation of the parietal peritoneum, due to the sudden outpouring of blood, bowel content or urine, into the abdominal cavity. The sign occurs within a short time after the injury has been received, and may last for several days. He believes that this sign when present is a positive indication for immediate laparotomy.

In the past nine years he has seen a large number of patients in whom there were symptoms and signs of internal injuries or suspicion of such. In only two patients was the sign absent; one in whom there was a rupture of the liver near the lobus spigelii, in which the blood was so thoroughly walled off that it did not reach the parietal peri-

toneum, and another with a severe bowel injury in which the abdominal cavity was full of blood. This sign has not been present in extra-peritoneal lacerations of the bladder, nor in injuries of the abdominal wall without injury to the viscera.

The sign was present in ruptured mesentery with hemorrhage, ruptured spleen, ruptured bowel, ruptured liver, ruptured tubal pregnancy. It should also be of value in perforating ulcers of the stomach, or duodenum, or of the bowel in typhoid fever.

Such emergencies as injuries of the contents of the abdominal cavity may occur in the practice of any physician at almost any time, and it is frequently difficult to decide whether an immediate laparotomy should be done or whether to watch and wait. Claybrook urges that the sign be looked for in all cases of abdominal injuries, whether the symptoms or signs of visceral injury are present or absent.—*H. F. Editorial, in The Lancet-Clinic.*

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**THE BULGARIAN BACILLUS IN INFANTILE DIARRHEA:—**Another physician who has been using the Bulgarian bacillus in tablet form in the treatment of infantile gastroenteritis is Louis H. Schwartz, who reports in *The Medical Record* (January 24, 1914, p. 159) 55 cases of infantile diarrhea treated during July and August last, and in which these tablets were used. Inasmuch as the home conditions of these infants were for the most part wretched, the parents being poor, ignorant, and superstitious, the results obtained really were remarkable.

The babies ranged in age from a few weeks to two years. Of these, 16 were breast-fed, 32 were bottle-fed, and 7 were on breast and bottle combined; 47 were in their first year of life. In 33, there was diarrhea, but no vomiting, and in 20 there was both vomiting and diarrhea. The stools generally were green, watery or curdy, foul, slimy, and in a few cases blood-stained. There was fever in 20 cases, the

temperature in some cases running as high as 105 degrees. Some of the patients received no treatment other than the ferment tablets, but 17 were given an initial purge of calomel and castor oil, and were kept on barley water alone. However, very few of the infants were actually entirely denied the use of milk. Bismuth in small doses was administered along with the Bulgarian bacillus tablets in 13 cases.

The results obtained were as follows: There were no deaths. Gain in weight was recorded in 43 of the children; 2 lost weight; 3 gained and then lost later; and in 7 there was no change of weight. In nearly every case, the temperature came down to normal within one to three days. Within two or three days after the Bulgarian-bacillus tablets were used, the stools became yellowish or brown, well formed, and free from mucus and blood. The number of stools sometimes decreased, but occasionally remained unchanged. In the latter cases, bismuth subnitrate in tablet form was given in addition to the lactic-acid tablets.

Doctor Schwartz believes that the administration of Bulgarian-bacillus tablets is a distinct advance in the therapeutics of the diarrheas of infants.

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**THE SINGLE DOSE OF ANTI-TOXIN IN DIPHTHERIA:**—The prevailing opinion as to dosage perhaps cannot be better summarized than was done by Dr. Darlington, former health commissioner of New York, in a paper read at a medical meeting in the spring of 1912. He says:

“All patients over one year old who have been ill from twenty-four to thirty-six hours, and show membranes limited to the tonsils, should receive at least 5,000 units. Patients over one year with membranes extending to the soft palate and uvula, or to the posterior wall of the pharynx, should receive 10,000 units as an initial dose, while in similar cases with the additional involvement of the nose on nasopharynx the initial dose should be at least 12,000 to



15,000 units. In septic cases when the patient has been ill for five to seven days, with necrotic membrane of foul odor, a tendency to hemorrhage from the nose or pharynx, and petechial spots upon the skin, enormous doses may be administered—up to 20,000 units. Even larger doses have been given, and croup cases should receive at least 10,000 units, and if the pharynx is involved with the larynx, 15,000 units. It is frequently necessary to repeat the dose, and the indications for this are: (1) If, after twenty hours, the false membrane is spreading, or does not show signs of curling at the edges; (2) if the general condition is not improved, as shown by the state of the pulse and the lessening of mental apathy. The latter is an extremely valuable guide, for in cases in which sufficient antitoxin has been given its improvement is more rapid than that of any other symptom. In croup cases the dose should be repeated unless the obstruction has become less marked. In all cases the second dose should be as large as the first. The indications for the third and fourth doses are the same as for the second, but the interval between the third and fourth doses may be reduced to twelve hours. When a maximum of from 40,000 to 50,000 units has been reached it is useless to administer more antitoxin. Further injections only increase the suffering of the patient.”—*Boston Med. and Surg. Jour.*

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**TREATMENT OF ANKYLOSTOMIASIS:**—A point of great importance in the successful treatment of ankylostomiasis, in Keith's opinion, is the percentage of hemoglobin in the blood. If the percentage of hemoglobin is in the neighborhood of 60, he says it may be reckoned that with suitable treatment the ova will disappear in the course of a few days. With a percentage of between 45 and 55, treatment will be more difficult. Anything below 40 per cent will indicate that great patience will have to be exercised before recovery can take place; it will not be a question of weeks, but of months, and this is certainly so when the

percentage of hemoglobin is as low as 10 to 20. The general condition improves with rest and diet. As a rule, the edema soon disappears and the patient feels better, but the ova, though they decrease in number rather quickly at first and then more gradually, do not disappear entirely for months, while the hemoglobin index remains persistently about its original level. From recent results, Keith has come to the conclusion that betanaphthol in 30-grain doses the first thing every morning is likely to prove more effectual than eucalyptus or thymol. The necessity for starving patients while the treatment is being carried out is by no means evident; indeed, in bad cases it may even be harmful. More especially is it unnecessary if the drug is given the first thing in the morning. There will not be much food found in the upper part of the small intestines five or six hours after an ordinary meal, so that if the drug be given the first thing in the morning, there is no necessity for starvation. Energetic treatment is needed, and Keith has never seen any ill-effects follow from such measures.—*The London Lancet.*

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**BOILS:**—Some time in the early eighties a Dr. Clay, of London (in the *Lancet*, if I remember correctly), recommended the use of piperin, the active principle of black pepper, for treatment of furunculosis. Having been from early youth susceptible to this infection myself, I gave the matter unusual attention, with the result that from that time I have treated practically all of my cases with this remedy. Dr. Clay's claim for piperin was a rational one, and will be much more readily understood now than it was thirty years ago. It was that piperin as an intense capillary stimulant brought about increased skin resistance which caused an arrest of development in beginning pustules and subsequent immunization for that period of infection. His method was to administer it in quite large doses at first or until the physiologic effect manifested in

an intense burning sensation over the entire body was produced, afterwards giving it in smaller doses for a somewhat extended period. In many years of this treatment, I have had no failures except in the aged or those with special complications. In younger persons it has, as a rule, proved superior to autogenous vaccines. Beginning with from 5 to 10 grains three times a day until the effect mentioned above is produced, I repeat at intervals or use it continuously, as deemed best. Small furuncles often disappear without suppuration, while others become limited in their severity. This procedure is absolutely safe, and annoying symptoms speedily subside when the doses are lessened or discontinued.—*John L. Dryer, M.D., Santa Ana, Cal., in Journal American Medical Association.*

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**VENESECTION IN CEREBRAL HEMORRHAGE:**—In cerebral hemorrhage in a full-blooded patient with face flushed and pulse full, bounding, somewhat slow, and of high tension (200 mm.), venesection will immediately reduce the tension, if only temporarily, 50 or more mm., thus aiding the organism to firmly fix the clot. With the common use and ease of employment of the various sphygmomanometers and the certainty thereby of the accurate determination of the blood pressure, the physician can easily recognize the high-pressure indication. The act of venesection itself has assumed an unnatural formidableness because it is not in common practice. In the unusually stout person there may become difficulty in finding easily a vein at the bend of the elbow, but in these patients there are usually in the legs varicose veins which can be opened. There is no need of speaking of the complications common a century ago. To-day there should be none to the physicians who use even ordinary care. The author reports cases illustrating the benefit frequently derived from removing 12 to 48 ounces of blood in the high-pressure cases.—*A. MacFarlane, in Medical Record, January 17, 1914.*

**RECTO-SIGMOIDAL CANCER:**—The radical cure of carcinomata of the rectum has a bad name in surgery, which is due more to inefficient methods of operation and purely sentimental attempts to conserve function than to the character and location of the disease. We are coming to the conclusion that a permanent colostomy in the middle of the left rectus muscle should be made as the primary operation in the majority of cases of carcinoma of the ampulla of the rectum, and at a second operation, after the low segment has been properly cleansed, the entire rectum should be removed from behind. This method offers the patient moderate control, with the best chance of a permanent cure.

High rectal and rectosigmoid growths will often be best approached through the abdomen or by the combined method. The perineal operation should be reserved for growths in the anal regions.

The frequency with which secondary carcinomata of the liver, peritoneum or inoperable glandular involvement occur, makes it imperative in all cases of carcinomata of the rectum and rectosigmoid to first open and thoroughly explore the abdomen to see whether the case is one which should be submitted to operation; and, if advisable, a permanent colostomy can be made at this time.—*Wm. J. Mayo, in The Journal-Lancet.*

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**BETTERMENT OF HEALTH CONDITIONS AMONG NEGROES** was the subject of a conference held in New Orleans April 24 and 25, 1914. The call was issued by the Louisiana State Board of Health. The purpose in view is to have health and educational authorities of the Southern States agree upon a plan of concerted action. Every person living in the South knows that the death and morbidity rates of the whites are not higher than in other sections. Records of small areas where accurate statistics are now gathered are proof. The rates among the negroes are high, and these, joined with those of the whites, make the total per cent

abnormally large. An erroneous impression of health conditions throughout the South is the result. Sickness among negroes is the consequence of ignorance. The majority do not observe the simplest rules of hygiene; they help to spread infection by prejudice against preventive measures and by the custom of promiscuous visiting of the sick. Housing conditions among them are bad; this, probably, is the greatest of all the problems involved. The remedy is threefold—to instruct the negroes in the primary principles of personal hygiene, to make better housing a civic responsibility and to enforce rigidly sanitary rules which relate to cleanliness, spread of contagion, etc.—*Lancet-Clinic*.

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**ENLARGEMENT OF THE AXILLARY GLANDS SYMPTOMATIC OF ACUTE PURULENT PLEURISY:**—It may be truthfully said that every year a certain number of children and even adults die with an unrecognized purulent pleurisy. And yet there is, according to Dr. Piolle, of Bohain, a sign which is present in every case, even at the beginning, and which enables us to say positively whether or not there is purulent pleurisy.

Whenever pus forms in one of the large pleural cavities or in the interlobar or diaphragmatic cavities, there is a concomitant, well characterized hypertrophy of the antero-internal group of axillary glands on the same side.

This hypertrophy persists until the patient is cured or dies, and the glands are often very sensitive to the touch.

Accordingly, if purulent pleurisy is suspected, the axillae should be examined, says Dr. Piolle. If you find that there is an unilateral hypertrophy of the antero-internal axillary glands, do not hesitate to puncture the lung at different points.

Radioscopy is no doubt useful at times, but not always; and besides it is not, as a rule, available to the general practitioner. (*Archives Medico Chirurgicales de Province*, March 3, 1913.)

**A SIMPLE TREATMENT FOR ANAL FISSURE:**—M. Katzenstein, of Berlin, confidently recommends (*Ther. d. Gegenw.*, Dec., 1913) his rapid nonoperative treatment of anal fissure, as employed by him for some time. He employs a mixture of extract of belladonna, 10 parts; cocaine hydrochloride, 10 parts; ichthyol, 80 parts. The underlying idea is this: the atropine overcomes the irritability of the exposed nerve-endings; the cocaine allays the pain, so that the spastic conditions are relieved; and then the ichthyol favors the healing process.

A pledget of cotton is rolled into a cord of the diameter of a thick knitting needle; then, having gently warmed and shaken up the medicament, this cord is saturated with it and then introduced into the anus, placing it at the opposite side of the commissure from where the lesion is located. The medicament gradually will spread to the sore, while direct application would be too painful. This is renewed daily until a cure is effected; but sometimes even the first application ensures marked relief. To obviate occurrence of fresh fissures, it is advised to pass into the sphincter, every day for a while, a good-sized greased bougie (or, probably better, a small rectal dilator).—*Clinical Medicine*.

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**A SIMPLE METHOD FOR DIMINISHING POST-ANESTHETIC SICKNESS:**—Dr. E. M. Barker (*Brit. Med. Jour.*) came to the conclusion that post-operative vomiting was mainly due to the nauseating smell of the anesthetic (particularly ether), which often hangs about the nasal cavities for days. To obviate this he applies eau de Cologne on a mask immediately on ceasing the anesthetic, and instructs the nurse to continue to do so for half an hour after the patient is back in bed.

Eau de Cologne does not possess any specific virtue for the purpose, but simply replaces an unpleasant smell with a pleasing one. The results are so satisfactory that the author now practices it as a routine.

**NEW TREATMENT OF EPILEPSY:**—Alfred Gordon (*New York Med. Jour.*, January, 1914) reports four patients were treated with subcutaneous injections of cerebro-spinal fluid, taken for each from another epileptic, and were benefited considerably. The dose of fluid injected was 3 to 5 c.c., at biweekly or weekly intervals. The direct effect of the procedure was unmistakable, for the reason that prior to this treatment for months and years the patients had received uninterruptedly large doses of bromides and other drugs, with little or no relief. The improvement after the administration of the cerebro-spinal fluid was striking, not only with reference to the severity of the individual attacks, but also their frequency. In some of the cases the nature of the attacks changed: Petit mal took the place of grand mal. The mental hebetude following the epileptic seizure became exceedingly slight. While spinal punctures with removal of cerebro-spinal fluid have been reported as alone yielding a beneficial effect in epilepsy, this objection is removed by the fact that, while in the author's three male patients the spinal canal was punctured, the fourth patient, a girl of eleven years, had no spinal puncture, and the results were just as satisfactory. The greatest amount of improvement was noticed, especially if the injected fluid was taken from other patients during recurrent attacks, no matter how slight the latter may have been. Each of the four patients had presented the most serious type of essential epilepsy.—*Lancet-Clinic*.

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**IN HYDROCELE** and other scrotal operations a transverse incision, preferably in one of the skin folds, produces a far better cosmetic result than the vertical incision generally employed.—*Exchange*.

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**ACUTE FLEXION** is the best position in which to dress elbow fractures through the humerus. Care must be taken, of course, to avoid skin decubites and obliteration of the radial pulse. *Early* passive motion is highly important.—*American Journal of Surgery*.

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### *Original Communications.*

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#### THE TRANSFUSION OF BLOOD WITH LABORATORY TECHNIQUE.\*

BY LUCIUS E. BURCH, M.D., OF NASHVILLE, TENN.

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The direct transfusion of blood is the transference of the blood of one individual to that of another, either by the union of the vessels of the two with suture or by means of a canula. It is impossible to say where the idea first originated of transferring blood from an animal or man to

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\*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, June 2, 1914.



that of a human being. It is referred to in the sacred book of the Priests of Apollo; also in the works of Pliny and Celsus. Probably the first authenticated case is that of Pope Innocent VII., who was operated on in 1492 by a Jewish doctor. The blood of the Pope was passed into the veins of a youth, whose blood was passed into those of the old man. It was tried three times at the cost of the lives of three youths, without avail, the deaths being due to air embolism. This is probably the first authenticated case of death ascribed to air embolism. In 1792 Russell of England bled a boy who had hydrophobia and injected into his veins the blood of two lambs, with a recovery. There are numerous cases found in literature in the seventeenth and eighteenth centuries where the blood of animals was used for transfusion purposes. Transfusion was first put on a firm foundation by Cryer, who demonstrated clinically a successful instrument for this purpose. The profession, however, is much indebted to Carrell for first showing how to unite severed blood vessels, and it was this discovery that most likely made direct transfusion possible. This method of treatment is, as yet, in its infancy, but even at this early stage in its development, it is without a peer in the treatment of certain conditions.

*Indications:*—The best and most brilliant results of transfusion have been in cases of hemorrhage in which the source has been controlled. It has also been used successfully in those cases where the source could not be controlled, but in this variety one must be careful not to put in too much blood, on account of the possibility of the dislodgment of the clot from the raised blood pressure, and consequently the occurrence of fresh bleeding. Such conditions that produce accidental hemorrhage as typhoid, ectopic gestation, placenta previa, and gastric ulcer are best treated by transfusion. It is most successful in the hemorrhage of the new born, melena neonatorum. It is well to remember that the longer the interval between the hemorrhage and the treat-

ment, the less likely are we of obtaining good results. A number of cases of uncontrolled vomiting in pregnancy are reported in which cures were effected by transfusion. In shock it will relieve when all others fail. Cole reports a number of apparent cures of pellagra by transfusion. Transfusion has a splendid effect on desperate cases in which an operation is demanded and at the same time the patient has not the vitality to withstand the operation. Cases with chronic suppuration are much improved by this procedure.

*Contra-indications:*—Diabetes and pernicious anaemia are unfavorably influenced by transfusion. It has no effect whatsoever in sarcoma or cancer. Exophthalmic goiter is also unfavorably influenced by this method of treatment.

*General Considerations:*—More blood may be transfused in shock than in hemorrhage whose source is not controlled. It is impossible to make a differential diagnosis between these two conditions by clinical symptoms alone. The history of the case with the clinical signs and with an examination of the blood will usually make a differential diagnosis possible. Shock does not effect the haemoglobin. Hemorrhage decreases it. Shock increases the red blood cells, hemorrhage decreases them. Shock decreases the white blood cells, hemorrhage first decreases and then increases them. Women stand the loss of blood much better than men and make new blood more quickly. There is a general shrinkage of the body after hemorrhage, which is especially noticeable in the face and the backs and tips of the fingers. There are many methods of transfusion that are advocated. Quite popular at the present time is the syringe and canula method of indirect transfusion. It has some advantages over the direct method in that there is no incision, no after scar and no anæsthetic. The amount of blood is accurately gauged and the rate of transfusion is under control. The literature at the present time is teeming with these various methods of indirect transfusion, and

no doubt it will be in the future quite successful and popular when the technique is perfected.

*Technique of Direct Transfusion:*—There are three instruments that are most widely used for direct transfusion. These are the Cryer, the Elsberg and the Bernheim. The Cryer is the most widely employed, since it was the first successful instrument brought out. It is, however, the most difficult of all to use successfully, and unless one has had a great deal of experience and special preparation, I would not advise its use. The Elsberg is one that I have employed a number of times. It is a practical and useful instrument, but in those cases where the recipient is a baby, it is difficult to use on account of the smallness of the veins. The Bernheim, to my mind, is the most practical, and is easily used by any one who has had a moderate experience with blood vessel surgery. It is necessary to have two operating tables, one for the donor and one for the recipient, with an intervening table for the arms of both to rest on. It makes no difference whether an arm or a leg is used, it should always be right to right or left to left. In other words, the right arm of the donor should be coupled with the right of the recipient, or if the left is used, with the left of the recipient. I think it wise, in most cases, first to prepare the donor and then bring in the recipient and expose the vein. If the case is desperate, the vein of the recipient may be prepared in a different room, while the arm of the donor is being prepared, and then roll in the table on which the patient lies and the anastomosis made. The radial artery is the vessel selected for the donor, and if he is right-handed, the left radial should be chosen, or vice versa if he is left-handed. The part over the artery is anaesthetized with a one-half to one per cent solution of novocain. The artery is exposed and absolutely cleansed of all accompanying veins and branches, taking care to ligate the branches, both distally and proximally, before they are cut. A sharp knife is necessary to make this dissection.

One need never fear wounding an artery with a sharp instrument, if any care at all is used, and it is only with an instrument of this kind that a clean dissection can be made. I want to emphasize especially the clean dissection of the artery.

This technique will apply to all three methods. If the Elsberg canula is used, it is unnecessary to ligate the artery proximally, for the reason that this instrument contains a clamp that controls the bleeding, and it is also necessary to cuff back the severed end of the artery over the canula. If the Bernheim instrument is used, a small cut is made in the upper side of the artery at right angles to the course of the vessel and about half its width. All blood is washed out with normal saline solution, and liquid vaseline is injected into the lumen of the vessel with a medicine dropper. This latter procedure keeps the vessel soft and pliable and prevents too rapid drying. If the adventitia gets into the opening, it should be brushed aside or cut off. The male half of the Bernheim tube is now inserted into the artery and held there by a ligature thrown around its neck. Liquid vaseline is again injected into the vessel through the tube and the artery and tube are now wrapped in salt solution gauze until the vein of the recipient is ready. The vein is exposed in the same way as the artery and with the same precautions. It is a much simpler process and only about an inch of the vein is exposed. One of the prominent veins of the elbow or of the leg is selected. The female half of the canula is then inserted into the vein, just as the male half was inserted into the artery. It is also necessary to wash out the parts with saline and with liquid paraffin. The exposed part of the recipient and donor are then brought together and blood is allowed to flow from both the artery and vein, and during this flow the coupling is made. The whole anastomosis is then wrapped in gauze, soaked in warm saline solution, and the finger and thumb of the operator slightly compress the vein to prevent too

rapid a flow. It is most important that both donor and recipient are carefully watched. The donor's pulse and blood pressure should be noted every three minutes. It is essential that the heart of the recipient be carefully watched, and for this reason one who is skilled in physical signs must be assigned to this duty. Heart sounds must be carefully noted with the aid of a stethoscope throughout the operation, and the area over this organ must be frequently percussed to determine if there are any signs of acute dilatation. The technique of the various hemolyptic tests, as well as the method of determining the amount of blood transferred, will be brought out by Dr. Eggstein.

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#### TRANSFUSION—ESSENTIALS IN ITS TECHNIC.\*

BY A. A. EGGSTEIN, M.D., OF NASHVILLE, TENN.

*Assistant Professor of Pathology and Bacteriology in  
Vanderbilt University, Medical Department.*

The question of transfusion is a very important one, but heretofore many have hesitated to advise its use because of dangerous sequellæ after the procedure. The fear was rightly founded when the proper precautions were not used to avoid the causes of the danger. The unfavorable results accompanying transfusion can be prevented by careful preliminary details, and many deaths or lack of good results following this therapeutic measure are no doubt due to a want of appreciation of the value of the reaction of the blood of the recipient and donor to each other.

The points to be tested for are as follows:

1. Whether the donor's serum will destroy or hemolyze the recipient's red blood corpuscles; or whether the recipient's serum will destroy those of the donor; thus determining if there are any iso-hemolysins in either sera. This is

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\*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, June 2, 1914.

of great importance, and should deter one from using that particular donor's blood in that particular recipient.

2. Whether or not inter-agglutination or clumping is likely to occur between the blood cells of either; if so, iso-agglutinins are present in one or the other.

3. If the serum of one will precipitate the serum of the other is also of importance, but occupies a minor role.

These three conditions should deserve careful attention, and you cannot eliminate them by reason of the fact that donor and recipient are close blood kin. These iso-hemolysins, iso-agglutinins, and iso-precipitins are inherited, as pointed out by Ottenberg and Epstein in 1908, and no certainty can be obtained of their absence or presence until the blood of both donor and recipient are carefully tested for each of these three bio-chemical reactions.

Full detailed reference to a clinical determination as to iso-hemolysins, iso-agglutinins, and iso-precipitins will be omitted in this brief paper; however, some of the most important points will be stated. (1) Only a very small amount of blood from either is necessary—1 to 2 cc. being ample. Let serum of the blood of both donor and recipient be separated and cells of both be washed in normal saline solution to free them from their own serum. Tubes are set up as follows:

Definite amounts of donor's cells to varying amounts of recipient's serum.

Definite amounts of recipient's cells to varying amounts of donor's serum.

About six tubes of each are required, using varying amounts of both inactivated and non-inactivated sera; then add several tubes with equal amounts of the straight blood of both individuals. These tubes are incubated from 2 to 3 hours, at the end of which time you let the cells in the tubes settle to the bottom of the tube, and see if the fluid at the top is Hemoglobin stained; and if not so, hemolysins do not exist, and there are no iso-hemolysins.

Similar tubes, but with greater dilution of cells, are set up, incubated, and the cells observed under the microscope to see if they are stuck together. These tubes determining any iso-agglutinins. You may also detect this macroscopically by observing the rate of the precipitation of the cells; if this is very rapid, there is agglutination.

Iso-precipitins are determined by adding straight and diluted sera together, then looking for precipitates or a cloudy condition in the clear sera.

Iso-hemolysins constituting pathological phenomena; also being the most dangerous of the three. Ottenberg and Kaliski, of New York, in 128 individuals observed 17 that were hemolytic to several donors. The iso-agglutinins need not be regarded as absolute contraindications of transfusion, but non-agglutinin donors should be chosen when possible. The iso-precipitins are of even less importance, but should be considered with the other reactions.

The relations of test-tube reactions and intra-vascular actions are close, and when these reactions are present in the test-tube, they are also most usually in the blood. These tests are simple to the laboratory worker; they are absolutely reliable and should always be used prior to transfusion. No one would take an unlabeled bottle of drugs and give a large dose of it; and as each sera is a very different chemical from other sera, especially as to the compatibility to other sera and blood cells, it behoves the practitioner to use these tests in all cases requiring transfusion. It is as much a criminal practice to flow poisonous blood into a patient as to give any other poison; and these phenomena we have cited exist so frequently between normal people, and only more so in diseased people, that transfusion cannot be done with any degree of safety without resorting to the above-mentioned tests.

In addition to preliminary testing the blood there are other laboratory measures essential in transfusion. First, both individuals must have a negative Wasserman reac-

tion; or by history and clinical features we must exclude syphilis in both. And, secondly, next in importance to compatibility of the blood is the estimation of the amount of blood being transfused; the first consideration here being to avoid taking too much blood from the donor; and secondly to determine how much the patient has received—*i. e.*, the therapeutic dosage. The variations in blood pressure of both is too irregular to be of any assistance. The pulse also varies too easily, even from psychical causes, to be of any value. However, the rise in hemoglobin is very regular; it can be very easily determined accurately, and upon this very definite change a recent method of calculation has been given by E. Libman and R. Ottenberg, of the Mt. Sinai Hospital of New York.

The principle of this new method is an arithmetical proposition as follows: "If two fluids of different percentage of a substance in solution are mixed in unequal volumes, the percentage strength of the resulting mixture is the sum of the products of volume multiplied by the percentage of each solution, divided by the volume of the total mixture." The blood of the two individuals are the two solutions, each containing its own percentage of hemoglobin—the substance. Then, with the volume of the blood of the recipient with the blood given him by the donor known, we are ready to make the calculation. All the blood of the recipient must be calculated, and only the amount transfused must be used in the calculation, as these are the two volumes to be considered.

The amount of the blood in the recipient is determined as follows: Weigh the individual, and one-nineteenth of his weight is the volume of his blood. If he weighs 114 pounds, his blood is 6 pounds. Now, say his blood has 30 per cent hemoglobin. Weigh the donor, whose weight is 190 pounds. One-nineteenth of this is 10 pounds, the volume of his blood. He can easily give up one-fourth of this, which would be two and one-half pounds, to be mixed



with the 6 pounds, the total amount of the recipient's blood. The hemoglobin of the donor, we will say, is 90 per cent. Now, according to the principle cited, 6 pounds (recipient's blood weight) is multiplied by 30 (his hemoglobin percentage). To this we add  $2\frac{1}{2}$  pounds (weight of blood transfused), multiplied by 90 (hemoglobin percentage of blood transfused). This divided by 6 (weight of recipient's blood), plus  $2\frac{1}{2}$  (weight of blood transfused), gives us  $47\frac{1}{2}$ , the hemoglobin percentage to be reached.

By making these calculations before transfusion is started, and by frequently testing the blood of the recipient while the blood of the donor is flowing in, and when the percentage of hemoglobin of the recipient reaches the calculated percentage, you know the donor has given his quota of blood. Even one-third the amount of the donor's blood can be transfused without danger to him; with this amount also calculated one has a slight range of the terminal of percentage of hemoglobin that can be reached with safety to the donor. In the above example the terminal safe percentage for the donor would be about 51 per cent.

Libman and Ottenberg made transfusions and rise of hemoglobin observations upon 99 cases, and in only one case did the donor show symptoms of weakness where the hemoglobin was raised to the calculated amount; and by means of exact weighing of both donor and recipient, before and after transfusion in a series of eleven cases, showed that this formula corresponds closely to the amount of blood transfused.

It is also possible to determine from an observed rise in the hemoglobin in the recipient the amount of blood the donor has lost. This is done by simple algebraic calculation, taking the unknown factor  $x$  for the volume of blood transfused in the above example. The equation then will be: Six multiplied by thirty, plus  $x$  multiplied by ninety; divided by six plus  $x$  will equal 47 per cent. In simplifying

the above equation,  $x$  equals two and one-half, the number of pounds of blood transfused.

This method is applicable in nearly all cases requiring transfusion. It is more difficult to use or determine the rise in hemoglobin where the difference of the hemoglobin percentage is small to begin with, as in acute hemorrhage. In three cases of transfusion (one with Dr. Burch at his infirmary, and two at Vanderbilt Hospital) we have used this method to estimate the amount of blood given, which are here briefly reported.

CASE 1.—E. M. Diagnosis: Pelvic Abscess. Hemoglobin before transfusion was 38 per cent. Total amount of blood, 5 pounds.

Donor's hemoglobin, 93 per cent. Amount of blood transfused, 2 pounds.

The recipient's blood was tested every two or three minutes during the transfusion with both Dare's and Sahli's hemoglobinometer. The calculated percentage to be reached was 54 per cent. The flow was stopped when the recipient's hemoglobin was 47 per cent. The donor gave no untoward symptoms, and the future course of the patient was most excellent. In this case, contrary to Libman and Ottenberg ("that 24 hours after transfusion there is a sudden rise in the hemoglobin"), the hemoglobin dropped in 10 hours to 47 per cent, in 3 days to 38 per cent, where it remained for 5 days following, and then a rapid increase to 50 per cent and on up.

CASE 2.—Dr. W. Diagnosis: Acute Peritonitis. His hemoglobin before transfusion was 75 per cent; amount of his blood, 6 pounds.

Donor's blood (a brother), hemoglobin, 90 per cent. Amount of blood used, 2.5 pounds. The hemoglobin to be reached in this case was 78 to 80 per cent, as safe limits. When the hemoglobin reached 79 per cent, the flow was stopped. The patient rapidly improved with early recovery.

CASE 3.—A child, one day old, with rectal hemorrhage.

Had used sera of both human and horse's blood without effect. Hemoglobin before transfusion was 95 per cent. Amount of blood, one-half pound.

Donor's blood (mother of child), hemoglobin, 75 per cent; amount used, one-half pound, as one-fourth of the mother's blood would be entirely too much, the hemoglobin of the child had to be decreased from 95 per cent to 85 per cent, which was done with success.

From a review of the literature of the subject and this limited experience I desire to make the following conclusions:

1. In all cases requiring transfusion a thorough and careful preliminary testing of both recipient's and donor's blood is absolutely necessary.
2. Accidents from transfusion can thus be absolutely eliminated.
3. The laboratory tests above described can be relied upon with safety.
4. The amount of blood transfused in all cases should be known.
5. The method of Libman and Ottenberg is simple and apparently quite reliable.
6. By its use you are not working in the dark, but with a definite formula, and thus any untoward symptoms in either donor or recipient can be readily detected and eliminated.

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### DRINK OR DRUGS—WHICH?

BY C. E. PATTERSON, M.D., OF GRAND RAPIDS, MICH.

"To be, or not to be? That is the question. Whether 'tis nobler" to be soaked, steeped, or saturated in or with one or more of the enslaving drugs of today, so that one can exemplify his manhood by drinking as much as the next fellow and not get completely under foot; or chewing or smoking—one or both, just once a day—from the time of rising to that of retiring; or taking ten to twenty grains

of morphine per day; all or any of which are qualifications devoutly NOT to be wished; or, *To Be a Free Man?* Which, I ask you, *which?*

It seems that the world is moving at such a rapid rate of speed these days that it is an exception rather than a rule to find in a series of individuals, taken collectively from a mass or from the passers-by on the highway, each and every one of whom are not enslaved by drink, drug, or tobacco in some way, form, or fashion; seeking in some way to draw out from the bank of reserve energy a certain amount whereby they try to "keep up with the procession." There is a wave of intelligence passing over this fair land of ours today, which doctors do not like, ministers can say nothing bad enough about, and the people condemn, because the numbers tell them to; and that wave is known by the name of *New Thought*. The new part of it is, "*To think for yourself.*" The time has been, and is not far in the distant past, when all men were ruled by *suggestion*; and I might say, the thinkers are so scarce today that, as a whole, we are mostly imitators. Only a few otherwise. But let us now catch the wave and drift with the tide, rather than against it. Public sentiment is getting exceedingly strong against liquor using, and the signs of the times are that our Congressmen are beginning to think a little, and to figure out that from every dollar they receive from liquor revenue costs actually ten dollars or more; so they are just beginning to see they are looking over dollars to see cents, saying nothing of the degeneration of the race produced by the revenue maker, whisky!

Congress is already searching for a place whereby our people may be saved from the condition of servitude into which China was placed, simply because one nation was willing to sacrifice a sister nation for a few dollars. Anything, O Lord! So that we can sell our opium. China has caught the *New Thought*, and in places where once bloomed the poppy now grows corn, potatoes, and rice in abundance.

Tobacco is by no means of any small importance just now, so many of our people using it in some form, both men and boys; and even women are to be found smoking in public places today. As I see it now, there is some chance for improvement as to liquor and drugs, but with tobacco, where is the end? There is no public sentiment against it, and so many are using it in some form or other that for the few of us who do not use it, to make a protest is like the "tail trying to wag the dog." Hence, all I can say to any one who does not use tobacco in any form is: *Stick to your freedom*. Do not let your lodges or social gatherings drive you to it. Better by far to stay at home and entertain yourself by reading even an almanac. In my own opinion, there are more deaths from tobacco than there are from drink and drugs in any year, could the actual truth be known. And why not? Have we not learned that nicotine is one of the strongest poisons we have. Can it do otherwise than kill, if poisons will kill? Certainly it can do no good; and if it does no good, it must do harm.

Now as to drugs and liquor, I can see that our government is beginning to awake. I think that in the near future we may see a great change along these lines. But then a great question comes up: What will we do with those unfortunates who have erred in judgment and allowed themselves to be caught in the wily snare of drink or drugs? Alcohol and opium may be in some instances most excellent servants; but they are *most terrible masters*. But more as to this later.

Shall we allow "ignorant China" to excell us in protecting our people? We have pure food laws, both state and national, whereby the authorities seek to protect the people from eating foods detrimental to health. But why cannot those in authority see that liquor poisons more of our citizens, desolates more homes, creates more divorces, and separates more families, and actually makes more insane adults as well as idiotic and degenerate children, and even kills

more than all the adulterated foods, with poor cooking thrown in; and yet for the sake of the revenue from liquor it is made a legalized and licensed business; for so many dollars per annum or per quarter you are authorized to sell this poison to those who know no better and will buy it; you can sell it from sunrise to sunset and from sunset to sunrise, every working day in the year, legal holidays not excepted, and only in some places are election days and Sundays excepted. However, with this *New Thought* movement we soon hope to see a change, and not far in the future either. Public sentiment is becoming stronger and stronger against liquor, and when the wave is strong enough, "it will wash the shore."

Many at the present time are beginning to hedge, and are using drugs in lieu of liquor, and especially is this so in the medical profession, to whom I would most earnestly say: Doctors, be careful if you are taking either. With this wave of reform will come a law that will disqualify such men in the profession as are addicted to drink or drugs. Stop now and ask yourself the question: Would you want your dearest friend, your near relative, to be treated by one whose brain was blunted and dulled by either drink or drugs? Be honest; would you?

I think all of my readers will agree with me, that none of us have any too much brains; and I further think the term is a generally accepted one, that "when drugs or drink are in, brains are out." If it should come to a question as to which of the two evils is the least, I would say whisky will put you out of the profession sooner than drugs; but if you are looking toward a cure, you can possibly be cured of the liquor habit in a shorter time than the drug habit demands. Yet, as to the permanence of a cure, there is more satisfaction in treating a drug habit; for when once cured, we do not find "the devil and all of his hosts" on every corner near a National or State licensed store seeking to once again entice you from "the straight and narrow

path." No one ever asks you to join him in a social dose of morphine or other dope.

In regard to the morphine habit, there is much that I would like to say. However, modesty, personal and ethical considerations forbid; yet I ask the privilege of saying a few words. First, the drug habit is very easily acquired, but cured with considerable difficulty. It can be cured, but it is almost impossible to do so at the patient's home. Far better to get the advantages of a well-equipped and organized institution; not only by reason of the wide and varied experience of the physician in charge, the trained attendants, as well as other facilities in the way of equipment that cannot be found at home; but of no little consequence is the entire change of environment.

In making selection of an institution for yourself, a member of your family, or a patron, do not rely too much upon what you read in the advertisements to be found in the secular or even the medical press; be chary of what the preachers say about its excellencies; and do not place too much confidence even in what is told you by doctors of medicine, unless you can place full reliance on their statements; however, make your selection from the best and most reliable information that you can secure; get the rates per week; also an estimate of how long the cure may require; demand some positive information as to the methods and measures resorted to, and pay for a week's treatment, and give the institution a trial. You can see the effect on others, and see for yourself how the cases are managed. Never allow them to substitute heroin or codeine for morphine and call it a cure—a substitute is never any better than that for which it is substituted; it is only a very poor and unreliable makeshift at best. Finally, do not make any arrangement with any institution that will *guarantee a cure*. The "no cure no pay" concerns are pure fakers. Avoid them as you would a snake. But you must not lose sight of the very important fact, that you have got to do your part.

## *Obituary.*

GUSTAVUS BROWN THORNTON, M.D., died at his residence in Memphis, Tenn., May 10th, 1914. He was born in Virginia, and graduated in Medicine at the N. Y. University (Med. Dept. Univ. Med. Col. of New York City) in 1860. He commenced the practice of his profession in Memphis immediately after graduating. Entering the Confederate Army in 1861, he was commissioned Surgeon, serving as Surgeon of a regiment, Senior Surgeon of Brigade, and early in 1863, was promoted to Chief Surgeon of Gen. A. P. Stewart's Division, remaining permanently on his staff until the close of the war between the States.

Returning to Memphis in 1865, he at once took high rank among the able physicians and surgeons of that city. He was a great physician, a most able and competent surgeon, a most estimable citizen and a grand soldier. Many of those residing in Memphis at the present day knew but little of him; his active days were from 1860 to the earlier part of the present century. During those fateful years of '78 and '79, so fraught with death and desolation to so many Memphis homes he was in charge of the city hospital and at the head of the city Health Board. He was an active leader in all the medical work that was done in those years when the grim monster took his toll from every house. He was President of the City Board of Health in the early '90s, and was responsible for the plans of the Memphis city hospital, and supervised its construction.

His surgical experience during the years '61-'65, were largely added to by his services as a R. R. surgeon, holding appointment from the largest railroads entering the city, being local surgeon of the Southern R. R. at the time of his death. His private practice was very large, and his rare abilities were recognized by the most prominent members of his profession throughout the country. He was modest to a high degree, patient, earnest, sincere, and his



charity was great. He gave the same untiring and devoted attention to the way-faring man and the pauper as he did to the richest in the land; as courteous and kindly to the inmate of a charity ward as to one who could command everything that money or rank could procure.

The writer's acquaintance with him began in 1863, when a Regimental Surgeon he first served under him as Chief Surgeon of Division. This acquaintance was maintained and its honor fully recognized until the current year; and he can most sincerely and deeply grieve with the hosts of other Tennesseans at the loss of so grand and noble a citizen. Knowing him as we did as a soldier, as a member and President of the Memphis Board of Health, as a member of the State Board of Health, as ex-President of the Tenn. State Medical Association, and as ex-President of the Association of Medical Officers of the Army and Navy of the Confederacy, he may have had equals, but a superior, *never*. God grant that there may be others like him!

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JAMES McDONALD KELLER, M.D., died at his residence in Hot Springs, Ark., May 27th, 1914. He was the son of David Keller, originally of Maryland; and Mary Fairfax (Moore) Keller, grand-daughter of Gov. Spottswood, of Virginia, was born in Tuscumbia, Ala., Jan. 29th, 1832. He graduated in medicine from the University of Louisville, Ky., in 1852, and settled in the vicinity of that city; removed to Memphis, Tenn., in 1857, where he was practicing at the beginning of the War between the States, and in May, 1861, he was appointed Surgeon in the Army of the Confederate States, the seat of Government then being at Montgomery, Ala. He was at once assigned to duty at Memphis, as Post Surgeon in charge of the hospital there, where he remained until a short time after the battle of Shiloh. His work of organization and administration as surgeon in charge was very arduous, but reflected great credit upon him. He was next ordered to Corinth, Miss.,

and assigned to duty as chief surgeon of Gen. T. C. Hindman's division, subsequently accompanying Gen. Hindman when he was ordered across the Mississippi river, and served as Medical Director of the Trans-Mississippi Department until 1863, when his health failing, he was ordered to Richmond, and on regaining his health was ordered to Mobile, as Medical Director of the Hospitals of the Department of the Gulf; remaining there until Mobile fell, he was assigned to duty with Gen. N. B. Forest, remaining with him until his surrender at Gainesville, Ala. He was active, faithful, just, judicious and energetic in the discharge of all his duties.

At the close of the war he returned to Memphis, remaining there until 1868, when he removed to Louisville, and was subsequently Professor of Surgery in the Kentucky School of Medicine, and in the Louisville Medical College, acquitting himself as a competent, eloquent and practical lecturer and teacher. For more than a third of a century past he has enjoyed a large practice at Hot Springs, Ark. He was once President of the Kentucky State Medical Association, the Arkansas State Medical Society, ex-Vice-President of the American Medical Association, and ex-President of the Association of Medical Officers of the Army and Navy of the Confederacy.

Of a handsome and commanding presence, courtly and genial in highest degree, with a gift of language and eloquence accorded to but few, facile with his pen, he was a contributor to a number of medical journals, and will long be remembered throughout the South and West as one of the leading members of the medical profession, which he both loved and adorned.

In June, 1852, he married Sallie, daughter of David B. Phillips, Esq., of Jefferson County, Ky., who preceded him to the great beyond several years ago; she is affectionately remembered in Confederate circles as "Ole Miss."

FERDINAND EUGENE DANIEL, M.D., editor of the "*Red Back*" *Texas Medical Journal*; and one of the best-known practitioners of the Southwest; died at his home in Austin, Texas, May 14, aged 74. He was born in Hicksford, Va., July 18, 1839, and was graduated from the New Orleans School of Medicine in 1862. Before his graduation, he had been a private of the line in the Confederate service, and immediately after his graduation he reentered the service as surgeon. He also served during 1863 as Judge Advocate with the Army of the Tennessee, as Secretary of the Army Board of Medical Examiners in General Bragg's division; and also on the staff of Lieut. Gen. Hardee. He was for many years a member of the State Medical Association of Texas, and was its first President in 1904, under the reorganization. Dr. Daniel was one of the founders of the first Texas medical college and a member of its faculty in 1867 and 1868. He founded the *Texas Courier Record of Medicine* in the early '80s, and established the "*Red Back*" *Texas Medical Journal* in 1885. Dr. Daniel was widely known as a writer, not only of polemics, but on scientific subjects.

The beautiful tribute to his memory by his contemporary, Dr. Matthew M. Smith, in the "Editorial Department" of the *Texas Medical News*, we most heartily and sincerely endorse, and while we regret that want of space prevents our giving it in full, we cannot forego quoting the closing paragraphs, which are as follows:—

"Daniel, my fellow journalist, I knew you better and perhaps understood you more thoroughly, than any living physician to-day. I can truly say in your presence if you are looking down upon me at this moment; that you really bore no man malice. You had made your peace with every human being and with your God. You loved mankind and every living thing on this earth. You held the highest ideals in life and constantly used your pen to persuade others to your viewpoint. Your admiration for the women

of our country and for the protection of their honor, was characteristic of you, and your gallantry and chivalry shone forth at all times.

"Truly man in his lifetime attempts to play many roles, and yet but few become masters in more than one. But nature was partial to you and endowed you with many rare gifts and enabled you to achieve, through your wondrous talents, success in many lines. You were gifted as an orator, as a writer and as a conversationalist. You were learned not only in medicine, but also in the sciences and the arts.

"As a raconteur, you showed much merit, as evidenced in your work entitled, "The Recollections of a Rebel Surgeon." The scientific side of your nature revealed itself in your wonderful narrative, "The Strange Story of Dr. Bruno," while your imagery therein rivalled that of an Edgar Allen Poe. And your religion, I feel, was truly and beautifully expressed in the classic eulogy you delivered before the state association, upon the death of Dr. R. M. Swearingen.

"As a loving and indulgent father, the gentle and devoted husband and indeed in every walk of the home, your example was one to be emulated.

"Dear friend and co-laborer, we miss thee from our midst. Thy departure from us, hath left a vacant place in our hearts which cannot be filled by another. If it be permitted those of us who are left to communicate with those who have passed a little ahead to the Great Beyond, then would we give thee this message: Your fellow physicians all loved you. They treasure you in their memories. They miss you and would strive to accomplish those high ideals for which you so earnestly labored. They know you must be happy in the company of the great physicians who preceded you to that celestial shore, where you may commune with the gallant Swearingen, the lovable Manning, the stately Wooten, the retiring Litten, the courageous Wilson, the earnest Wallace, the kindly Gardner, the devoted Harrison

and the hundreds of others who have crossed to that other side.

"Send to us messages of good cheer and give inspiration to take up the burden where you laid it down and strength to move forward in our professional work so that we may contribute our portion of the needed labor for the ultimate uplift of humanity and the purification of the human race."

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RUFUS PITTS, M.D., died recently at his home in Murfreesboro, Tenn. He was a graduate of the Medical Department of the University of the South, 1901, and was a sufferer from suppurative disease of the lungs since his graduation. He made a manly and brave fight for life, while actively engaged in the practice of his profession. He was for a number of years the zealous and faithful Secretary of the Rutherford County Medical Society, which at its last meeting adopted memorial resolutions of respect and esteem for a lovable and honorable member.

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JOHN M. DUNN, M.D., a graduate of Missouri Medical College, St. Louis, 1861; surgeon in the Confederate service throughout the Civil War; died at his home in Richmond, Ark., May 19, 1914, aged 80.

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R. L. BRODIE, M.D., of Charleston, S. C., we learn through the P. O. Department, recently died at his home. He was a Surgeon in the Army of the Confederate States throughout the War between the States. He was a graduate of the Medical College of South Carolina, Class of 1850, and had retired some years since from active practice.

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C. H. TEBAUT, M.D., died in May, last, at his residence in New Orleans, La. He was a graduate of the Medical Department of the University of Louisiana, Class of 1862. He served in the Medical Department of the Army of the Confederate States, and was for a number of years Surgeon-

General of U. C. V., on the staff of Gen. Jno. B. Gordon. He lost his eye-sight a few years ago and was forced to retire from the active practice of his profession.

We regret exceedingly that we cannot give a more extended notice of the last three members of "The Old Guard," although we have written to parties residing in the homes of each. Well, they have gone to their well-earned rest. Faithful soldiers of an honorable cause, may they sleep well, "under the shade of the trees."

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## *Editorial.*

### THE FOOD AND DRUGS ACT OF TENNESSEE.

The Food and Drugs Act of this State prohibits adding to the food and drugs consumed in the State deleterious ingredients, and likewise enforces the sale of such materials for what they are. In other words, it prevents the addition to them not only of materials which are harmful, but of those which are useless, and the addition of which unduly cheapens the product without notice to the consumer. It conserves public health by insuring the purity of foods, conserves public morality by making manufacturers tell the truth about their goods, and helps to keep down the cost of living by insuring to all foods the nutritive effect which properly belongs to them. The consumer's pocket is protected by it because it prevents the sale of adulterated stuff at the price of pure goods. Although not its primary object, it has afforded to the honest merchant the greatest protection of any recent legislation, because it has brought out from under cover the rottenness of dishonest goods, so that merchants now know the exact character of goods sold by competitors. In this way, it has given stability to the food trades, preventing illegitimate competition and minimizing the effects of trickery. Finally, it has been one of the most potent of the legislative agencies invoked in that fight for justice to the common people and for better conditions of life, which has attained such considerable dimensions in the last decade, but in which so much more still remains to be done.

The Food and Drugs Department of Tennessee was organized in pursuance to Chapter 297, Acts of 1907, which took effect January 1, 1908. At that time the appropriation was very meagre indeed. There was a small appropriation for the Laboratory and for running ex-

penses, besides the salary of the Inspector. For twelve months the Department was run in a room set apart in the private laboratory of the Commissioner, who had been for some years a practicing chemist in Nashville. The Legislature of 1909 added to the Department another Chemist, who was badly needed; it also added to its duties the enforcement of the Sanitary Food Law. In 1911 there were certain much needed amendments made to the Food and Drugs Act and more duties put on the Department, in the shape of the law governing the fire protection and sanitation of hotels. Two field inspectors were added to its force. The Legislature of 1913 was liberal to the Department in giving four additional field inspectors, and an office force of two persons, but they were almost as liberal with duties, because they put upon the Department the enforcement of the very important Weights and Measures Law. The appropriation now is at a figure at which the Department can do considerable work, and make its influence more than ever felt.

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#### HOW NOT TO BE FAT.

In the *July Woman's Home Companion* a woman contributor, who declines to sign her name, writes a practical little article entitled "How Not To Be Fat." She says that she began by noticing that stout people sleep too much. She gradually worked her alarm clock back from seven-thirty to six o'clock in the morning and put in the extra time exercising and bathing. Then she took up the habit of walking after breakfast. In ten weeks' time she found that she was losing flesh slowly—less than half a pound a week. Then she took up the problems of diet and exercise. Of these she writes in part as follows:

"The problem of diet was to me a difficult one—I was so fond of good things to eat, and I had seen dieting continue into nervous dyspepsia. I began by cutting down the liquids at meals—all the cold water I wanted before and after, but only one cup of tea or coffee.

"It was now four months since I had gone into training, and all at once I began to realize that I was not eating as much as formerly. My appetite was keen, but it took less to satisfy it. I kept to a mixed diet, but I limited myself to one starchy food and one sweet at a meal.

"Eating, sleeping, bathing, working, playing—the last two remained to be dealt with. I would see what could be done in these lines. Work: there seemed no change practicable, except that I might work harder, and I did. But I am satisfied that the extra work had no bearing on my loss of weight, for I was never as tired at night as I used to be when I slept until half past seven and then rode downtown.

"As for my playtime, I joined a tennis club; and of all reducing exercises I can cheerfully recommend tennis as the quickest and most inevitable. The only trouble is, it might kill a really fat person; by the time I could play tennis, however, I was not so very fat! The fourth, fifth and sixth months, I lost eight pounds!"

In one year she lost twenty-five pounds and in the next five months took off three pounds more, bringing her down to normal weight or in fact two pounds less than what is called for by her height.

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**CLINICAL CONGRESS OF NORTH AMERICA:**—The fifth annual session of this Congress will be held in London, England, from July 27 to August 1, 1914, under the presidency of Dr. John B. Murphy of Chicago. A large number of clinics will be given during the morning and afternoon hours in various London hospitals, while the evening will be devoted to the scientific program, sessions being held in both the Hotel Cecil and the Savoy. The first meeting of the General Surgical Division, which will be held at the Cecil on July 27, will include addresses of welcome from Sir Rickman J. Goodlee, honorary chairman of the London Committee, and the American Ambassador, as well as addresses by the retiring President, Dr. George Emerson Brewer, and the President-Elect, Dr. Murphy. Prof. A. von Eiselsberg of Vienna will discuss the choice of the operative method for ulcer of the stomach. Subsequent meetings of this division will include papers on typhoid perforation, by Dr. G. E. Armstrong of Montreal; on the results of operations for exophthalmic goiter or hyperthyroidism, by Dr. Charles H. Mayo, and on the transplantation of ovaries, by Prof. Tuffier of Paris; a symposium on the operative and non-operative treatment of cancer, participated in by Prof. Kronig of Freiburg, Dr. J. F. Percy of Galesburg, Ill., Dr. T. Wilson of Birmingham, and others; and a symposium on intestinal stasis, the speakers being Sir William Osler, Sir Berkeley Moynihan of Leeds, and Dr. J. C. Bloodgood. The meetings of the division of surgical specialties will be held at the Savoy, and for these an interesting and varied program has been prepared, including a symposium on the surgery of cleft palate.

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**BACILLUS BULGARICUS IN GASTRO-INTESTINAL DISEASES:**—The method of treating intestinal infectious processes by implantation of the *Bacillus lactic bulgaricus* appears to be growing in favor with American practitioners. Clock's experience in upward of a hundred cases of infantile diarrhea at the Babies' Hospital of the City of New York, as related by him in the Journal of the American Medical Association



of July 19, 1913, has undoubtedly played a considerable part in focusing attention upon *Bacillus bulgaricus* therapy. In the instance referred to, 117 cases were treated by the outpatient department staff of the hospital, under Clock's personal supervision. Of this number 116 recovered, the one death occurring in a severe case of entero-colitis which had persisted for two weeks before treatment began. Noteworthy among the results of the treatment were the gain in weight by the patients, despite the number of stools; the rapid change of the stools to yellow; the rapid subsidence of fever; absence of mucus and blood from the stools at the end of forty-eight hours. "The implantation method of treatment," declared the author, "has progressed beyond the experimental stage, and the results of its use can no longer be questioned or disputed. The treatment has proved of practical, clinical and scientific value; and its simplicity should appeal to every practitioner."

Parke, Davis & Co. offer *Bacillus bulgaricus* (a pure culture) in tablets, the form used by Clock and others in the treatment of gastrointestinal diseases, numerous cases of which have been reported in the medical press. Physicians will do well to write them for literature.

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**PREPARE THE BABIES FOR HOT WEATHER:**—During the month of June it is not a bad plan for the physician to take mental "stock" of the babies under his care, especially such as are bottle-fed, with the general idea of recommending such treatment as will tone up and vitalize those whose nutrition may be below par, so that they may enter the trying summer months in the best possible condition to ward off or withstand the depressing influences of extreme heat or the prostrating effects of the diarrheal disorders of the heated term.

Careful attention to feeding is, of course, a *sine qua non* and the details of the infant's nourishment should be carefully investigated and regulated. But this is not all. Many bottle-fed babies are below standard from a hematologic standpoint. The marasmic anemic baby deserves special attention in the way of building up and restoring a circulating fluid which is deficient in red cells and hemoglobin. In the entire *Materia Medica* there can be found no direct hematic quite as suitable for infants and young children as *Pepto-Mangan* (Gude). In addition to its distinctly pleasant taste, this hemic tonic is entirely devoid of irritant properties and never disturbs the digestion of the most feeble infant. Being free from astringent action, it does not induce constipation. A few weeks' treatment with appropriate doses of *Pepto-Mangan* very frequently establishes sufficient resisting power to enable the baby to pass through the hot summer without serious trouble, gastro-intestinal or otherwise.

THE FULL-GROWN NOVEL complete in the July *Lippincott's* will be by the distinguished British author, L. Cope Cornford. Village life is depicted in it at a rather lively gait, with real flesh-and-blood characters, who love or hate, long for luxury and follow the lure of business speculations, fall into—and out of—troubles, even as you and I. But through it all they are not unconscious of the funny side of things, and the story is one of absorbing interest. This adapts it especially to warm-weather publication. Watch for the title: *Northborough Cross*.

The well varied contents following the novel in July will show a number of short-stories and an article or two—nothing to tax your brains, but guaranteed to entertain—pleasing poetry and miscellany of many kinds. "The Funny Side of Married Life," a paper showing keen insight, by Christine Terhune Herrick, begins with the assertion that a sense of humor is indispensable to satisfactory married life—and illustrates her statement with amusing instances and helpful hints. Caroline Lockhart will give us seasonable news of "The 'Movies' in Central America." These short-stories (and others not yet scheduled) may be expected: "Babes in the Woods," by Thomas Grant Springer; "That Blooming Azalea," by Agnes Edwards; "The Wisdom of Folly," by Owen Oliver; "A Communal Execution," by Francis J. MacBeath. Everything bright and light in July.

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LONG ISLAND COLLEGE HOSPITAL, BROOKLYN, N. Y., which is one of the oldest medical colleges in the East, has undergone complete reorganization in order to meet the modern requirements of teaching medicine. It has instituted a five-year course to take effect in September of this year, and has arranged to add over twenty full-time members to its faculty, and every department has been increased. The junior year will be given over to dispensary work and didactic medicine and surgery and the senior year will be devoted entirely to bedside work in the hospital owned by the college, which, with the new addition, will give the institution 560 beds and make it one of the largest in Greater New York.

The following gentlemen will occupy the new positions on the faculty:

- Dr. Archibald Murray, Professor of Pathology.
- Dr. William Lintz, Professor of Bacteriology.
- Dr. John C. Cardwell, Professor of Physiology and Pharmacology.
- Dr. Matthew Steel, Professor of Chemistry.
- Dr. William Francis Campbell, Professor of Surgery.
- Dr. William S. Brinsmade, Professor of Clinical Surgery.
- Dr. Joshua M. Van Cott, Professor of Clinical Medicine.
- Dr. E. H. Bartley, Professor of Pediatrics.

**CRAMPS OF CHOLERA MORBUS:**—The approaching season of heat, with its following train of stomach and intestinal diseases, emphasizes the proven value of *Hayden's Viburnum Compound* in Cramps of Cholera Morbus and Muscular Cramps.

H. V. C. is compounded only from selected material, depending for its therapeutic efficiency upon the recognized value of Viburnum Opulus and Dioscorea Villosa, combined with Aromatics.

Dr. Torald Sollman, in his text-book, "Pharmacology," Page 510, recommends Viburnum Opulus in Muscular Cramps.

"King's American Dispensatory," page 2059, Vol. 2, refers to this same product in like conditions.

Prof. Potter, in his "Materia Medica, Pharmacy and Therapeutics," page 266, recommends the employment of Dioscorea Villosa in Cramps of Cholera Morbus, and Prof. Ellingwood, in his text on "Materia Medica and Therapeutics," page 336, also advises its employment.

*Hayden's Viburnum Compound* presents Viburnum Opulus and Dioscorea Villosa in their most refined and active state, and when given in hot water, a pronounced effect will be observed when employed in Cramps of Cholera Morbus and in Muscular Cramps.

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**ELIMINATION:**—To relieve the digestive tract of those waste products which tend to clog and load the system and encourage auto-intoxication, Pil-Cascara Comp. (Robins) will be found efficacious. This is not an ordinary Cascara pill, but one special in form and therapeutic action.

Each pill contains: Cascara,  $\frac{1}{2}$  gr.; Podophyllin, 1-16 gr.; Colocynth,  $\frac{1}{4}$  gr., and Hyoscyamus, 1-12 gr. These pills encourage normal peristaltic action and do not leave the intestine in a state of atony.

They stimulate a flow of secretions, thus encouraging a normal physiological evacuation. A. H. Robins Co., Richmond, Va., will send you a trial package. This is the best way to convince yourself of their superior therapeutic properties.

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**A SAFE SOPORIFIC IN NEURASTHENIA:**—The danger of prescribing the ordinary opiates and hypnotics in neurasthenia, particularly in females, would be sufficient reason for preferring Pasadyne (Daniel), even if it did not possess a distinctive therapeutic value and one which entitles it to a place in the foremost rank of calming agents. It frequently happens that the need for a reliable soothing product arises in the management of a neurasthenic, and when it does there is no better choice than Pasadyne (Daniel). Samples may be had by addressing the laboratory of John B. Daniel, 34 Wall Street, Atlanta, Ga.

PANOPEPTON, the food for the sick, is especially designed, especially refined, in view of the conditions prevailing in sickness, and the requirements of the sick—for nutrition; for the sparing of energy; for the recruiting of strength and digestive power.

With its 24 per cent actual dry solids, soluble food constituents, derived under physiological conversion from the most important typical food stuffs, beef and wheat; with a well-considered ratio of protein to carbhydrate with its proteids all highly diffusible and some reduced to ultimate cleavage; with its agreeable, stomachic and cordial properties, due to the carefully conserved savory extractives of the beef, Panopepton is technically and chemically a peculiarly excellent food. It has "ability for good service," and clinically, physiologically, it is proving of the highest utility.

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EXERCISE FOR THE BABY:—Marianna Wheeler, author of "The Young Mother's Handbook," tells of an incident in her experience when a baby which had every care failed to thrive. Each day's routine—its clothing, its food, its outings—was studied carefully in order to find, if possible, the cause of its frequent colds. It was decided that the conditions surrounding it seemed perfect, with one exception—an almost total lack of exercise. Most of its waking hours were spent out of doors wrapped up under heavy coverings. As soon as a series of leg and arm exercises were started the baby's health began to improve and his chronic colds disappeared.—*Woman's Home Companion*.

Yes, and not only exercise for the limbs; but also for the lungs. Let the baby cry a little when he wants to.—*Ed. "S. P."*

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CATARACT IN THE "FAR EAST":—In a re-print from the *Jour. of Ophthalmology and Oto-Laryngology*, Dr. F. B. Tiffany gives some very interesting points in connection with the "Indian Operation for Cataract." He refers to the large amount of Eye Surgery done in the populous centres of Bombay, Amritsar and Calcutta, citing the methods used by the English Surgeons Major McPherson, Lt. Col. Smith and Lt. Col. Maynard in the three cities above mentioned.

Dr. Tiffany gives the following essentials to the success of a cataract operation:—Good vision; steady hand; constant practice; self-possession; asepsis; keen knife; and careful subsequent treatment.

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SURGEON-GENERAL WILLIAM C. GORGAS, U. S. A., received the honorary degree of D.Sc. from Princeton University June 16th, ult. On the following day Yale University conferred upon him the honorary degree of Doctor of Laws.

**DANGER DUE TO SUBSTITUTION:**—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The more recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

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**FOR THE PROTECTION OF YOUR PATIENT** *and in Justice to Yourself*  
do not fail to write:

R. Gray's Glycerine Tonis Comp. 1 bottle. 16 oz.  
(Purdue Frederick Co.)

This word of warning becomes necessary because of the reports physicians are constantly sending in to the effect that their prescriptions have been filled with inferior imitations or worthless substitutes. By specifying an *Original Package* you insure results. Physicians should be keenly alive to the fact that their professional reputations, as well as the welfare of their patients are only too often jeopardized by unscrupulous druggists with worthless substitutes and inferior imitations.

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**GLYCO-THYMOLINE:**—Now that intestinal disorders of children are prevalent, we especially want to call attention to its use in the treatment of same. Being non-toxic, *Glyco-Thymoline* can be given in any dosage required, usually half to a drachm or larger, correcting as it does, hyperacid conditions, stopping fermentation and putrefactive process.

As a high colonic flush, a tablespoonful of Glyco-Thymoline to the pint of water rapidly cleanses away the mucous and fecal matter, is soothing to the membrane and eliminates danger of auto-intoxication. Its use as mentioned above reduces temperature rapidly. The more we have used it, the better we like it.

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**THE HAMILTON COLLEGE OF LAW** at its annual convocation, June 3rd, ult., conferred the degree of D. C. L. (Doctor of Civil Law), on Dr. G. Frank Lydston, of Chicago.

**A GOOD LAXATIVE—CATHARTIC:**—How often have you instructed your patient as to a particular laxative-cathartic, and how many times have you been disappointed in the results from your prescription because of the failure to obtain results from the evacuant? There is now offered the medical profession an exceptionally pleasant and agreeable cathartic called Citrolax—an effervescent tablet, an ideal laxative-cathartic without excessive peristalsis, producing as nearly as possible complete defecation. If you have not had an opportunity to try this excellent combination, read their advertisement in this issue and send for samples.

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**CODLIVER OIL IN HOT WEATHER:**—It is not necessary to stop the employment of codliver oil during the heated term. One need but employ Cord. Ext. Ol. Morrhuae Comp. (Hagee), from which the nutritive advantages attaching to the crude oil may be obtained.

In Cord. Ext. Morrhuae Comp. (Hagee) the physician has at his command an admirable tissue food, and one which he may depend upon at all seasons of the year.

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**HAY FEVER,** both acute and chronic, is being successfully combatted with Respirazone. Those of the profession not familiar with the article may obtain a free sample by writing to the Tilden Company, New Lebanon, N. Y., or St. Louis, Mo. This is one of the very reliable prescriptions in Hay Fever and Asthma, and has rendered valuable service.

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**ACUTE DERMATIC INFECTIONS:**—The further spread of acute dermatic infections and relief of symptoms are secured in the majority of instances by the application of Ecthol (Battle). Thus, in erysipelas ecthol will be found of marked utility, as also in the usual dermatoses caused by contact with poison oak and ivy.

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**NEURILLA:**—For nerve disorders. If patient suffers from the "Blues" (nerve exhaustion), Nervous Insomnia, Nervous Headache, Irritability or General Nervousness, give four times a day one teaspoonful Neurilla. In nervous fretfulness of teething children give five to twenty drops.

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**SYR. HYPOPHOS. COMP. (Fellows):**—It has been noted that those patients with pneumonia who have systematically taken Fellows' Hypophosphites are less likely to meet with cardiac weakness or failure which so commonly occurs at the crises of this disease.

**PEACOCK'S BROMIDES:**—If any preparation has stood on merit, Peacock's Bromides is that preparation. It has stood the test of time where its many cheap imitations have fallen by the wayside. Purity and definite bromide results are its chief recommendations.

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**SANMETTO:**—For Genito-Urinary Diseases. A vitalizing tonic to the reproductive system. Specially valuable in Prostatic Troubles of old men, Irritable Bladder, Cystitis, Urethritis, Pre-Senility. *Soothing, Relieving, Restoring.*

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**ERGOPIOL (Smith):**—The Anodyne and tonic effect which Ergopiol (Smith) invariably has upon the female organs of generation, render its employment of supreme importance in all disorders of the menstrual function attended by pain.

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**SAL HEPATICA** as a liver stimulant and chalogogue has become one of the most extensively used agents in general practice. In torpidity of the bowels or intestinal sluggishness it is invaluable.

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## Selections

**IS A POSITIVE WASSERMAN REACTION OF ABSOLUTE VALUE?**—Probably at no time in the history of medicine has as much been written on syphilis in a period of eight years as has since 1905. During that period our knowledge of the disease has changed considerably, particularly in regard to diagnosis and treatment. With the discovery of the Wasserman test a new light was thrown on many diseases that in the past baffled the minds of the medical profession. As a result of the scientific value of the test, we find to-day a goodly number of practitioners who utilize the test not only for diagnosis but also as a guide in the treatment of syphilis.

In other words, these practitioners advise that Wassermann tests should be made at frequent intervals, every thirty to ninety days, and so long as the reaction is positive the treatment should be continued. Whether there is or is not merit in pursuing such a course will not be discussed on

this occasion. The main object of our present discourse is to again bring forth the question whether the Wassermann test is really as reliable a diagnostic test of syphilis as we have been led to believe? We realize that many physicians nowadays will consider such a question nothing less than medical heresy or ignorance. Therefore we wish to call attention to the conclusions of Nicolas and Gate. These authors have found the Wassermann reaction positive in 39 per cent. of non-syphilitic cases examined, and, therefore, draw the following conclusions:

Wassermann reaction is positive in syphilis with more or less frequency. In no case does a negative reaction allow the denial of the existence of the disease or show a cure. It is influenced very irregularly by anti-syphilitic treatment to which it can in no case serve as a guide. The reactivations of Wassermann reaction by treatment are likewise irregular and inconsistent. In their studies they have observed that the reaction may be positive in persons who present no sign of syphilis, nor give a history of lues. In the series of cases examined by them, in many instances the test was made twice on the same non-syphilitic individual, with the result that on one occasion the reaction was positive and at another negative, and *vice versa*.

In commenting on the observations of the above-mentioned authors, it must be stated that even the most ardent advocates of the Wassermann test do not claim that the reaction is not subject to error. It is an established maxim that a positive reaction denotes the presence of lues while a negative Wassermann does not mean that the individual is free from syphilis. This is a parallel feature in the diagnosis of syphilis to the Widal test in the diagnosis of typhoid fever. The Wassermann should be accepted only as an aid in the diagnosis of syphilis. In doing so we will not find ourselves disappointed very often. However, we admit that we are hardly able to account for the large per cent. of positive reactions in non-leptic individuals. It is not



possible that the erroneous reaction in such a large percentage of cases was due to the rabbit's blood used as one of the ingredients in making the Wassermann test? According to Dohi, in Neisser's *Beitrage* for 1911, normal rabbits very often give a positive reaction.—A. W. N. in *Cin. Lancet-Clinic*.

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A NOTE ON THE PHYLACOGEN TREATMENT OF RHEUMATISM:—Flett in the *Practitioner* for May, 1914, reports cases treated by phylacogens and closes with these words:

"This case is one of several which was treated after scarlet fever, and the result has been uniformly good in each. The others have, however, all been afebrile. At present I have a number of such cases under my care, and on these I hope to report at a later stage. Their progress meantime is entirely satisfactory.

"I do not propose to enter into the details of other cases at present. The object of this note is to draw attention to what appears to be a valuable form of treatment in certain conditions. It may be argued that sufficient time has not elapsed to show whether the beneficial results are permanent. This may be true, but the fact remains that the phylacogen treatment has been, to put it at its worst, in the meantime successful, where other remedies have failed.

"A word as to the nature of rheumatism phylacogens. These are neither bacterial vaccines nor sera. They are aqueous solutions of derivatives generated by bacteria grown on artificial media. They are made from a large number of species of well-known pathogenic bacteria, such as the several staphylococci, streptococcus pyogenes, bacillus pyocyaneus, diplococcus pneumoniae, bacillus typhosus, bacilli coli, streptococcus rheumaticus, streptococcus erysipelatis, etc. The phylacogen made this way is the basic, or as the makers term it, the "mixed infection phylacogen." The rheumatism phylacogen is produced by combining the metabolic substance obtained from the growth of the strep-

*Staphylococcus rheumaticus* with an equal quantity of the mixed infection product.

"The mode of administration of the phylacogen may be subcutaneous or intravenous. The latter necessitates a much smaller dose, and the reaction is more severe. The results are, however, obtained more speedily. I have only employed the subcutaneous method, and have found it to be advisable to begin with small doses, one-half to one cubic centimeter being sufficient. The quantity is increased daily till a definite reaction occurs, and this regulates the size of the succeeding doses. Anaphylaxis has not been known to occur.

"The patient need not be confined to bed or to the house, which is a matter of importance to many. There are no contraindications to the subcutaneous administration of the phylacogen, except the presence of nephritis. It is important to continue the treatment for some time. A few injections may relieve the symptoms, but unless several further doses are given, the probability is that there will be a relapse.

"The phylacogen method of treating rheumatic conditions is one that will be extensively tried, and, from what I have seen of it, I believe that in many instances it will be entirely successful."

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INTRASPINAL INJECTIONS OF MAGNESIUM SULPHATE IN THE TREATMENT OF CHOREA:—This method of treatment which is now generally referred to as Marinesco's method was first suggested by the experimental and clinical work of Meltzer and Auer of New York. These investigators had shown that magnesium sulphate in intravenous, subcutaneous, and intraspinal injections, and in local applications of nerve trunks, inhibits the two chief properties of nerve tissue, namely, its excitability and conductivity. On the basis of their experimental work, Meltzer and Auer had suggested that the sub-arachnoid injections of magnesium sulphate might be employed with advantage as a substitute

for cocaine in producing regional anesthesia. The first important therapeutic application of this method was in the treatment of tetanus. At the present time favorable results from this mode of treatment are being reported from various clinics abroad. Marinesco demonstrated the good effects of magnesium sulphate when injected into the sub-arachnoid space in sciatica and in the gastric crises and the lightning pains of tabes, and later applied this method in the treatment of Sydenham's chorea. In 1908 he reported four cases of the latter disease successfully treated by means of the intraspinal injections of magnesium sulphate. Since that time similarly favorable results have been reported by Baduel, Rocaz and others.

The most recent contribution to this subject is that presented by Augusto Natali in the *Rivista Ospedaliera*, March 31, 1914. He employed the so-called Marinesco method in the treatment of eight severe cases of chorea, one of which was a chronic case in an adult. The technique consisted in the performance of lumbar puncture in the usual manner, the evacuation of a certain amount of the cerebrospinal fluid, and the injection of a solution of magnesium sulphate. The strength of the latter varied from 7 to 25 per cent., and the amount injected consisted of 1 cubic centimeter for every 25 pounds of body weight. Of the author's eight cases, following the first injection, there was a rapid improvement in two cases, an appreciable improvement in two others. No benefit was derived in the two remaining cases which included one instance of the chronic type of the disease. The importance of these results is revealed by the fact that all of the cases were severe ones, and had failed to respond to the usual methods of treatment. Natali points out that it is of advantage to follow the intraspinal treatment by means of a brief course of arsenical medication. As regards the rationale of the action of the magnesium sulphate Natali is probably correct in stating that this drug acts not as a specific but merely as a symptomatic remedy,

diminishing the excitability of the nerve centers.—*N. Y. Medical Record.*

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THE IMPOTENCY OF ANTISYPHILITIC TREATMENT:—"We have shot our last bolt, made our last bombastic boast, exploited to the limit the patented panacea of the new Apostle Paul, and we are still confronted with the unpalatable truth that in lues our medication offers no assurance of success. After a faithful adherence to the prescribed treatment, the luckless luetic who is entering on the long martyrdom of locomotor ataxia might well exclaim in the manner of the Bard of Avon, 'A pox on both your houses! salvarsan and mercury.'"

In these words Cunningham in a recent article in the *Medical Record* opens an excellent discussion of our present day knowledge of syphilis and its treatment. A fact that has been evident from past years of experience with mercurial treatment is that it is powerless in many cases to prevent late manifestations, especially of the nervous system. And a fact that is also being noted is that Salvarsan is apparently as impotent as mercury in preventing ataxia and paresis. Cunningham states that nothing more is to be expected from Salvarsan than mercury and that while symptoms apparently subside under their administration and while the "outer works may be swept clear of the enemy, the citidel is still in its hand." The secondary symptoms of the disease usually respond so nicely and the patient usually escapes other manifestations for so long a time that of late the full realization of the horror of syphilis has escaped the laity and even the physician.

A fact unexplained is that no matter how virulent the infection may be in women or how little care they may take of themselves they seem to escape nervous recurrences. The author makes a vigorous plea for self restraint and urges that the dire end results of syphilis be constantly brought before the minds of those whose moral tone and self re-

straint is weak. The author ends with these words: "If the men will dance to the moans of outraged virtue they will pay in the coin of idiocy, ataxia and premature death."—*Medical Sentinel*.

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**THE TREATMENT OF PUERPERAL SEPSIS:**—An excellent resume of the modern method of treating puerperal sepsis is given by E. E. Montgomery in *The Pennsylvania Medical Journal* for March. The foundation of the treatment is elimination, and this is most speedily effected by means of the continuous rectal instillation of normal salt solution. Ordinarily the patient is placed in the Fowler position, half-reclining, and the solution permitted to run in slowly. Should the bowel prove nonretentive, a double tube may be introduced, allowing the fluid to run in and the superfluous fluid and gas to escape; but in such cases the Fowler position can be reversed, that is, the foot of the bed may be elevated. As a rule, however, the half-reclining position, the fluid being introduced very slowly (the Murphy drip), gives the best results.

Care must be taken, though, to see to it that in this procedure the balance between absorption of the intestinal canal and elimination through the kidneys and skin is carefully preserved. Doctor Montgomery has seen marked ascites resulting from overfilling of the bowels when renal elimination was delayed or impaired.

Ice-packs to the abdomen are efficacious in lessening pain, limiting the extension of inflammation and promoting contraction of the uterine muscles. Strychnine, atropine, and ergot may be administered as needed, hypodermically, while digitalis can be given by the rectum. The diet should consist largely of milk and eggs.

The serum and vaccine treatments are highly recommended by Doctor Montgomery, who says he has great faith in the employment of antistreptococcic serum. Ten to twenty Cc., preferably the larger amount, should be given,

and repeated, in doses of 5 to 10 Cc., every twelve hours for two days or until its efficacy has been determined. The value of the bacterin is not so certain. Doctor Montgomery, however is favorable to the use of autogenous bacterins.—*Clin. Medicine.*

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**THE METABOLISM IN EPILEPSY:**—The discovery of oxyprotein acids in the normal urine by Bondzynsky and his collaborators and pupils, and the inference that these acids are found in an increased amount in the urine of persons who have marked disturbances of metabolism, stimulated inquiry along this line by S. Kozlowski, with special reference to epileptics. His results are reported in the *Zeitschrift fur klinische Medizin*, Vol. 79, Nos. 3 and 4. He found that oxyprotein acids are in some cases of epilepsy excreted in enormous amounts. At the same time, there is an accompanying increase in the formation of ammonia in the organism. Possibly these chemical changes are more or less directly related to the epileptic attacks. This supposition is strengthened by the fact that epileptic attacks are diminished if meat is withdrawn from the diet and replaced by milk, for this diet diminishes the formation of oxyprotein acids not only in epileptics but also in healthy people. In agreement with these facts one may cite the observation made by Krainski that lithium carbonate as well as borax diminishes the frequency of epileptic seizures. These salts lead to the formation of fixed bases, which combine with the oxyprotein acids. The question now arises whether the periodicity of epileptic attacks can be explained on the supposition of a chemical intoxication of the body. According to the author, it appears that the periodic onset in these attacks can be easily explained on this basis, for it must be considered that in the body of the epileptic the toxic substances in unfolding their activity find a suitable soil in the periodically increased irritability of the nerve centers.—*Ed. New York Med Rec.*, April 4, 1914.

**BENZOL IN THE TREATMENT OF LEUKEMIA:**—We have already called attention to the remarkable effects produced in certain cases of leukemia by the administration of benzol. It has now been proven by clinicians on both sides of the Atlantic that it is possibly the most efficient remedy that we have in overcoming the leucocythemia, but it is also becoming evident that these results, like those which follow the use of arsenic, are all too frequently only temporary. Thus, F. H. Smith has made a careful report of two cases of leukemia—one of the splenomyelogenous, the other of the lymphatic type—and concludes that while benzol is a remarkable remedy, spectacular in its effects, it is a two-edged sword, deserving of the utmost caution as to its administration and not specific in its effects. Smith emphasizes a point to which we have also already called attention concerning the product which is to be employed medicinally. It is important to recall the fact that benzol is not benzine but benzene, the formula of which is  $C_6H_6$ . Benzol, or benzene, is obtained in the fractional distillation of coal-tar, while benzine is a product of crude petroleum. It is also essential that the benzol shall be chemically pure, as much of that ordinarily obtained in the market is contaminated with various foreign substances. The dose commonly administered is about 7 minims three or four times a day, mixed with equal quantities of oil, which is placed in the capsule immediately before it is to be swallowed. According to Smith's observation benzol seems to be of no value in lymphatic leukemia, but of remarkable temporary potency in myeloid leukemia.—*Therapeutic Gazette*.

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**PUBLIC SCHOOL ATHLETICS:**—Many of the high schools of the Southwest are now regularly employing trained physical directors and supervisors of the playgrounds. This step marks a new era in school work, for it gives distinct direction to the physical development of high school students. The average high school boy or girl is already phys-

ically alert, a bunch of energetic muscles and nerves, that should be properly trained and developed. It is known that proper physical training is as essential to success as correct mental training. Heretofore physical development has largely been left to chance, or at least it has been without any studied direction. The physical directors will be men who understand anatomy and physiology as well as physical education, who have taken courses in the physiology of bodily exercises, drill regulations, educational play, corrective gymnastics, physical and medical examinations, first aid to the injured, etc. Besides teaching how to play they must teach the children those plays that will best develop their bodies and cure any physical defects, the plays that will make strong men and women of them. Many boys are playing football who are apparently well and strong, but whose physical conditions are such that they should engage only in less vigorous plays, and it is known that basketball and some other sports for girls are too great a tax upon the constitution of many girls. Physical direction will be welcomed by all parents who are interested in the proper development of their children.—*Texas Med. Jour.*

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**VOMITING OF PREGNANCY:**—In nearly every case of pregnancy "morning sickness" must be taken into consideration. Not satisfied with current teaching upon this subject, especially in the more severe cases of all-day vomiting, I have given considerable thought to the problem of relief.

The abnormal sensitiveness of the stomach I find to be sometimes mitigated by the ingestion of some simple food—a cracker, toast, hot tea or coffee—before raising the head from the pillow after awakening in the morning, and then remaining quiet for some time. But this alone did not cure the condition, and often did not even relieve it.

Reflex irritation from the growing uterus being the prominent factor, I instruct my more severely-affected patients to assume the knee-chest position when retiring; then



inserting two fingers into the vagina, make traction upwards, allowing the admission of air to distend the vagina and elevate the womb. This, by taking pressure from the surrounding parts, minimizes the reflex irritability. To this procedure I add the light lunch mentioned, with the further admonition very slowly to assume the erect position. This treatment has yielded very satisfactory results, it being rare indeed to find a case in which it had to be persisted in beyond the fifth month.

Simply treating the stomach is not sufficient in these cases; the uterine reflex irritation must also be relieved.—*W. E. McChesney, M.D., in Med. Council.*

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THE ALLEGED MISUSE OF CALOMEL is a tradition. It dates back to the days of our grandfathers. Is there a man living who has really seen a case of the disastrous results of salivation as depicted by Samuel Thomson? Were the cases of permanent injury ever more than exceptional in the days when the doctors ordered salivation until a quart or two of saliva had poured out?

To-day calomel is recognized as a very useful remedy, and rarely do we find a competent, experienced practitioner who does not use it as an excellent key with which to unlock the gates of excretion. True, we usually administer a grain in divided doses, instead of a tablespoonful every quarter-hour; but that is now the customary method of dosage for many drugs.—*Clinical Medicine.*

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THE CLINICAL EFFICIENCY OF PHYLACOGENS:—Concluding an article, Jarboe in the *Virginia Medical Semi-Monthly* says he thinks we are justified in believing that there is considerable therapeutic virtue in the phylacogens. He is pleased to adopt them for use in his practice because he is convinced that he has thereby added to his therapeutic armamentarium an exceedingly hostile foe to the gonococcus and to other infections.

**"INNOCENT" GALL-STONES:**—For years it was taught that gall-stones might exist without producing any symptoms whatever. This old theory was based upon the frequent discovery at autopsy of gall-stones in patients who had no history to point to their presence. The fallacy in this argument was that the patients were dead when the gall-stones were found, and could not be questioned about symptoms that might have existed and that might have been due to gall-bladder disease. In recent years, however, when gall-stones have been found unexpectedly at abdominal operations, later questioning has often elicited a history of chronic dyspepsia which had not seemed to have any relation to the gall-bladder, but which disappeared after the operation. Moynihan, in 1908, was one of the first to call attention to this, and to insist that gall-stones always cause symptoms, even though the latter are purely dyspeptic in character. He gave the name "inaugural" to these symptoms, which in his opinion may persist for years before their real cause is recognized.—*Wm. F. Cheney, in the Interstate Med. Jour.*

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**A SIMPLE REDUCTION OF SHOULDER DISLOCATIONS:**—My mode of procedure is the acme of simplicity, and is as follows: Having divested my patient of all clothing necessary—it is not always requisite to remove the vest and shirt—I place him on the ground in a sitting position and grasp the wrist of the injured side, the third party doing the same with the sound one. We then raise both arms straight above the head, taking care to keep them parallel, and extending them upwards till the patient is just raised from the ground, at which point a click is heard and felt and the dislocation is reduced without further manipulation, except that occasionally in cases of subscapular dislocation it may be necessary to slightly rotate the arm from right to left in the case of left, and from left to right in that of the right arm. These movements are, of course, carried out during extension.—*Julius Caesar in The Lancet.*

THE TREATMENT OF CHOREA:—Rene Benard notes that the medicinal treatment of this condition is most varied. Marfan has advocated the use of salicylate of sodium in such large doses as from 3 to 7 grams. The two most important drugs in chorea are antipyrine and arsenic. Comby gives the former in doses of 0.50 gram or more. His formulas are as follows.

R Antipyrine, 10 grams.  
Simple syrup, 190 c.c.  
Spirit of peppermint, 1 gram.

or

R Antipyrine, 10 grams.  
Extract of licorice.  
Glycerin, aa, 15 grams.  
Distilled water q.s. ad 150 c.c.

The dose of either of the above is one tablespoonful, which contains in the former 0.80 gram and in the latter 1 gram of antipyrine.

If the attack of chorea does not respond to the use of antipyrine, one may then resort to arsenic.—*Bulletin General de Therapeutique*.

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HOLMES ON THE ECLECTICISM OF REGULAR MEDICINE:—The *Critic and Guide* thus quotes the eminent discoverer of the communicability of puerperal fever, anatomist and literary writer, whose name should never perish from the annals of literature and medical science of America:

"Medicine, sometimes impertinently, often ignorantly, often carelessly, called 'allopathy,' appropriates everything from every source that can be of the slightest use to anybody who is ailing in any way, or likely to be ailing from any cause. It learned from a monk how to use antimony, from a jesuit how to cure agues, from a friar how to cut for stone, from a soldier how to treat gout, from a sailor how to keep off scurvy, from a postmaster how to sound the Eustachian tube, from a dairy maid how to prevent small-

pox, and from an old market-woman how to catch the itch insect. It borrowed acupuncture from the Japanese, and was taught the use of lobelia by the American savage. It stands ready to-day to accept anything from any theorist, from any empiric who can make out a good case for his discovery or his remedy."

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**CURE OF VARICOCELE:**—According to Dr. R. O. Braswell (*Med. Review*, January, 1914), it is seldom necessary to open the tunica vaginalis or to resect the enlarged veins. He prefers the Goodnight operation which is a simple shortening of the scrotum, and is performed in the following manner: Push the testicles high up in the scrotum and place a clamp across the scrotum just below the testicles in their high position. Cut away with sharp scissors or knife all the scrotum below the clamp. Release the clamp and pick and ligate all bleeding points with catgut. It will be observed when the clamp is removed that the tunica vaginalis has not been opened. Close the wound with interrupted silkworm gut sutures. This will hold the testicles up permanently and take the weight off the cord, and does permanently relieve varicocele. If it is necessary in extreme cases, or where there is a hydrocele present, the tunica vaginalis can easily be opened through this incision, and it will not be found necessary to open higher up.

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**TYPHOID BACILLI IN THE MOUTH OF THE TYPHOID PATIENT:**—E. Mondolfo has found that in the majority of cases of typhoid fever it is possible to isolate the typhoid bacillus from the mouth of the patient. The typhoid bacillus is more frequently found in the mouth than in the circulating blood. The presence of this organism in the mouth may be detected as early as the end of the first week of the disease. The discovery of the typhoid bacillus in the mouth, Mondolfo says, is a valuable diagnostic measure in the early stages of the disease.—*La Riforma Medica*.

**WRIGHT'S SOLUTION: A SUBSTITUTION FOR ANTISEPTIC SOLUTIONS:**—The recent epidemic of suicide and disaster with bichloride tablets makes a statement as to the excellent properties of Wright's solution timely.

The medical profession as well as the public have long been employing washes for wounds, sinuses, and running sores of all kinds, so it will be impossible to prevent this type of domestic treatment, for that which is customary in clinics and at hospitals will become popular with the public.

In the preantiseptic days balsam of Peru and balsam of fir were used for wounds. They had stimulating properties and in a mild degree produced a hyperemia, but did not aid the serum and were dirty and ineffective.

Lister introduced carbolic acid to the profession and it reached the public mind. By it bacteria were killed, but chemical pus was formed. Local irritation, disturbed healing and its absorption frequently resulted in irritation of the kidneys.

Then came bichloride of mercury and its allied compounds. These could be easily compressed into tablets and were kept in the hospitals and clinics for immediate use and also in the home on the closet shelf alongside other tablets of similar appearance.

Bichloride is not an ideal. It coagulates albumen. It is destructive to tissue as well as to microbes. It does not assist Nature in producing local hyperemia and bringing out the serum for wound healing. To be potent in a reasonable time, it must be made in strong solution.

Practically the majority of solutions used in surgery have not been potent because of the time required for antibacterial effect and the little time given for this purpose.

At our clinic in Christ Hospital carbolic was discontinued years ago because of dermatitis, bloody urine, and other disturbances following its use. Bichloride has not been used for over two years, nor has any other antiseptic been employed in the treatment of wounds.

The delightful effects of the Wright's citrated isotonic solution\* came to our attention and for the last two years nothing but it has been used. In all the thirty-seven years we have been attending surgical cases never have we noted such prompt results and such beneficent effect as obtained by the *proper* application of this solution. We have practiced long enough to be accustomed to the novel and the specific in action, but nothing in the surgical treatment of wounds has pleased as much as has it.

It is helping nature on her own lines. Nature heals through hyperemia. Nature sends the phagocytes and opsonins into the wound. The citrate of sodium keeps the wound itself free from deposit and allows of the permeation of the healing serum. Wounds are embarrassed by the accumulation of dead leucocytes and decomposing serum, and the presence of microbes in this accumulation, which neither the mercury salts nor the phenols efficiently controlled.

Wright's solution keeps the wound clean, favors proper granulation, and hastens the separation of small sloughings. To be properly applied there should be sufficient gauze kept *well-sopped*. If hospitals and clinics would but thoroughly try out this simple, cheap, and physiologically effective method, the public would soon follow suit and the bichloride tablet and its dangers would disappear.

During the two years in which it has been used in constant employment in Christ Hospital it was used at first only for wounds that failed to heal (such as after appendicitis operations), and those that had become infected. The more it was used the more confidence we had in its ability to cleanse and promote the healing processes a la Nature. Boils were effectively treated by it. A huge carbuncle on a big neck was incised, then gauze applied and kept sopped with Wright's solution, the gauze being changed frequently. There was an improvement in conditions and a cleansing

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\*Formula: Sodium citrate, 0.5; sodium chloride, 3.0; distilled water, 100. From Wright's "Studies on Immunization," p. 464.

and recuperation beyond that ordinarily expected. In erysipelas and lymphangitis gauze kept sopped added to the comfort of the patient and controlled extension. The solution as an irrigant at a temperature of 110° plus, is also used with great success in vaginitis, septic endometritis, and in infected wounds following gall-bladder surgery.

One should not be too enthusiastic in the estimation of the value of therapy, but it has long been recognized that the truth is always simple, and that the things that cure are seldom complicated. One cannot controvert the idea that when a physician is curing a patient he is aiding Nature. If the patient recovers in spite of the treatment, however, the treatment cannot be said to be not on a line with Nature's method.

According to the experience gained at Christ Hospital the sooner the profession relegates the chemical antiseptics to the background and follows out the ideas promulgated by Wright, the more sensible and the more successful the treatment will become.—*G. K. Dickinson, M.D., of Jersey City in N. Y. Med. Record.*

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**IODINE IN THE TREATMENT OF PLAGUE:**—A correspondent in an Indian paper calls attention to a simple method of treatment of bubonic plague, which treatment is said to be quite efficacious. The patient is given a dose of castor oil and then from five to seven drops of tincture of iodine in a little water. The buboes are painted with tincture of iodine. A milk diet is given. The following morning there are administered two drops of tincture of iodine in a little water. Quinine is given if fever is present. This method of treatment was employed in nine cases of plague, all of which recovered. At the time during which these cases were under treatment there was an outbreak of a virulent type of plague in the town in which these cases occurred and 500 deaths were recorded. Practically the same method of treatment had previously been employed in 51 cases of plague with 50 recoveries.—*N. Y. Medical Record.*

**THE MEDICINAL TREATMENT OF ACUTE BRIGHT'S DISEASE.**—Norbert Ortner states that tannin has long been a favorite drug in the reduction of albuminuria. It is strongly recommended by Pribram of Prague in the following prescription: R Sodium tannate, 0.10 to 0.20 gram. This dose should be given in cachet form. Three to five cachets should be given daily. Not more than 1 gram a day should be administered. Ortner has repeatedly tried this prescription but without marked success. In his experience with sub-acute nephritis after scarlet fever, he has often used quinine tannate as follows: R Quinine tannate 0.10 to 0.20 gram. This drug should also be given in cachet form, two to four times a day. Ortner has more recently used tannalbin, 2 to 3 grams a day, but without affecting in the least the progress of the disease as such: R Tannalbin, 1 gram. This may be given in a cachet two or three times a day. But Ortner now prefers the alkalies to tannin, particularly bicarbonate of sodium, 6 to 8 grams a day, or lithium benzoate or carbonate, 1 to 2 grams. Their administration has repeatedly been followed by a rapid increase in the amount of urine and decrease in its blood content. The alkalies also reduce the congestion. Almost all other drugs recommended have even less in their favor than tannin and tannalbin. Provisionally, methyl violet or methylene blue, 0.10 gram in wafers, or sodium benzoate may be employed for their bactericidal effect. Methyl violet possibly also reduces the albuminuria. Sodium benzoate may be prescribed as follows: R Sodium benzoate, 3 to 4 grams; distilled water, 170 grams; syrup of orange, 20 grams. Of this solution one tablespoonful should be given every two hours. The salts of strontium have been strongly recommended by French authors and have been tried in Vienna on Drasche's recommendation. Strontium bromide, strontium nitrate, and strontium lactate are used, the last most frequently. It is prescribed as follows: R Strontium lactate, 6 to 8 grams; distilled water, 170 grams; syrup of orange, 20



grams. Of this solution one tablespoonful should be given every two hours. Ortner considers that a venesection, taking 300 c.c. of blood from the vena pediea according to Baccelli's procedure is more effective than is the use of any styptic. In a short time, sometimes in 24 hours, it will reduce the blood content of long standing to a mere microscopic trace or may even cause it to disappear entirely from the urine.—*N. Y. Medical Record*.

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**EMETINE HYDROCHLORIDE IN EPISTAXIS:**—Another illustration of the power of emetine to control hemorrhage is given by Dr. James P. Prestley, in *The New York Medical Journal* for May 2, 1914 (p. 905). This occurred in a woman 73 years old, the wife of a physician, who gave a history of suffering from nose bleeding regularly every night for about ten days. She would wake about 2 a. m., with a choking sensation, and find her mouth full of blood and blood flowing freely from the nose. Her husband had used the usual methods of local treatment without benefit.

When Doctor Prestley was called to see this patient, she had already lost at least a pint of blood and a "regular stream" of blood was flowing freely from the nose. He injected at once 1-2 grain of emetine hydrochloride from an ampule, and in twenty minutes the hemorrhage had ceased entirely. One-half grain more of the drug was given the following day, and the same dose was repeated for five succeeding days. The woman's blood pressure being high, she was also given tincture of strophanthus three times daily. There have been no recurrences of the hemorrhage.

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BACKWARD, turn backward, O time, in your flight; give me a girl whose skirts aren't too tight. Give us a girl whose charms (generally few) are not exposed by a large peekaboo. Give us a girl (no matter what age), who knows that a street is no vaudeville stage. Give us a girl who is not all in view—dress her in skirts the sun can't shine through.  
—*Ex.*

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### *Original Communications.*

#### LATERAL SINUS THROMBOSIS.\*

BY W. G. KENNON, M.D., OF NASHVILLE, TENN.

Of the venous channels running along the temporal bone, the sigmoid or lateral sinus coursing over the internal surface of the mastoid process is the most frequently attacked by purulent inflammation secondary to mastoiditis. The superior and inferior petrosal, the cavernous sinus, the bulb

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\*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, June 30, 1914.

of the jugular and the diploetic veins are less often affected and are comparatively of little importance.

The inflammatory diseases of these sinuses arise in suppurative disease of the mastoid from extension of the bony suppuration to the walls of the sinus. If in suppuration of the middle ear the process advances as far as the wall of the sinus an encapsulated purulent inflammation between the sulcus and the sinus wall results with a peri-sinus abscess. This by contiguity causes an inflammation of the adventitia, which as the affection advances involves the intima, and induces the formation of a thrombus.

Conditions are different when in acute or chronic middle ear suppuration extensive destruction of bone takes place, by which the sinus wall is exposed. In this case the operator often finds the exposed sinus bathed in pus and covered with granulations or fibrin, without the least sign of sinus involvement throughout the course of the disease. This has been experimentally proven, and it is a fact that the wall of the sinus is itself the best guard against an infectious thrombosis. In these cases the sinus wall appears thickened, of a brownish yellow color, and raised from the underlying bony surface by pus, cheesy masses or hemorrhagic exudate. It is at times ulcerated and perforated by fistulæ.

The inner sinus wall is inflamed and covered with masses of adherent blood clot, which gives it a villous appearance. The sinus contains thrombi, which may be either solid or show signs of purulent degeneration. These thrombi extend sometimes down through the jugular to the subclavian vein and upward to the torcular Herophili, and even to the sinus of the opposite side. In like manner the phlebitis may extend to the inferior and superior petrosal and cavernous sinuses and to the emissory veins of Santorini. The rule is, however, for the thrombus to extend down into the bulb of the jugular vein and into the vein itself.

Sinus thrombosis often runs its course without causing other intra-cranial complications. At times, however, it is

combined with extra-dural abscess, meningitis of the posterior cranial fossa, or a diffuse leptomeningitis, and cerebral of cerebellar abscess.

The symptoms of sinus thrombosis vary a great deal, yet according to the authorities and authors we have in most cases at the inception, vomiting and headache, with symptoms of mild meningeal or cerebral irritation, and occasionally all the symptoms of pyemia and septicemia. Experience in various hospitals in this country certainly goes to prove that such symptoms are by no means the rule. The symptom on which I would lay the greatest emphasis as being by far of the greatest diagnostic value, would be a high temperature of the septic type, with slight or no chills, rarely sweats, and a remarkable feeling of well being except for the high fever. I had an example of this character recently, in a case in which when I asked the patient how he felt, although he had a pulse rate of 120, respiration 20, and temperature of 104, he replied: "Fine, except I am too hot."

We could go on multiplying symptoms and exaggerating signs to our heart's content, but we would finally come back to the one mentioned, high fever. Of course, if your thrombus has extended so far as to involve the cavernous sinus, or where pyemia has developed, the diagnosis is made and our prognosis certain; but we want to make our diagnosis early, so as to be able to make our prognosis reasonably favorable. If left to itself, sinus thrombosis is practically always fatal, by reason of metastases to various organs.

The diagnosis of sinus thrombosis in its early stages is now made by exclusion. If we have a case of mastoiditis, ante or post-operative, which develops a high temperature, and we can exclude pneumonia, meningitis, erysipelas, malaria and cholecystitis, our diagnosis is almost made for us. If in addition we can obtain a positive blood culture of the same organism as is found in the discharge from the ear, our diagnosis is unquestionable. The positive blood culture

is, however, not frequently obtained, because it must be secured either before the lumen of the vessel is entirely occluded, or when the thrombus is undergoing disintegration and emptying into the circulation what was practically a localized abscess until the liquefaction necrosis occurred.

Wendell Phillips in his recent work, quoting from Boeninghaus, lays down the following propositions regarding the diagnosis of sinus thrombosis:

"1. When after an acute purulent otitis media with mastoiditis, in spite of adequate drainage (operative) the fever recurs after dropping, we should be suspicious of sinus thrombosis. Especially if temperature elevation persists over a number of days and becomes higher as succeeding days pass. (Fever often persists, especially in children.)

"2. If fever reappears after an interval of normal temperature following adequate drainage (operative).

"3. When fever suddenly reappears after acute otitis media purulentia has apparently been cured for some time.

"4. When in cases of chronic purulent otitis media with marginal membrani tympani perforations there is sudden appearance of fever, then sinus thrombosis is to be suspected."

The treatment of lateral sinus thrombosis is operative, and the earlier the operation is done the more certain our case is to reach a favorable termination. The sinus should be exposed well from close down to the bulb of the jugular vein, well back toward the torcular Herophili. We can expose this sinus in the manner that appeals most to our operative methods, whether with chisel or curette and rongeur. This being done, the jugular vein is ligated. that is, if we are fairly certain of our diagnosis. Authorities differ on this point; but it does seem reasonable that the vein should be ligated, considering the fact that we are preparing to manipulate the thrombus, and at that, in a vessel of large calibre and distinct negative blood pressure; so that we not only have danger of septic embolism, but also, remote though

it be, danger of air embolism. The jugular vein having been ligated, the sinus is then opened and the clot removed.

Statistics all go to prove that the earlier the operation is undertaken, the greater will be our per centage of recoveries. The general mortality of all cases as shown in various text-books and ephemeral articles is somewhat less than 50 per cent. This is very high, and is certainly not the fact at the present time, when our diagnostic refinements are obtainable. The mortality from sinus thrombosis, if properly cared for, should not be 25 per cent, because it is only the case which comes to operation late that dies, and we should always make our diagnosis before the thrombus begins to liquify, or to involve other sinuses than the lateral.

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## Selected Articles

### THE LIMITATION OF OFFSPRING BY THE ARTIFICIAL PREVENTION OF CONCEPTION: FROM THE INDIVIDUAL, SOCIAL AND EUGENIC STANDPOINTS\*

BY WILLIAM J. ROBINSON, M.D., NEW YORK.

It is rather strange that a society whose members' living depends upon as many children as possible being brought into the world should be anxious to listen to a lecture which is to present arguments for the limitation of children. It is almost as if a Catholic or Methodist congregation invited a speaker to present the merits of agnosticism or atheism. Or as if the National Association of Manufacturers or the coal barons invited a lecturer to present to them the arguments for socialism or syndicalism.

But it is a good sign of the times. It shows that a greater and greater number of people are willing to hear the other side. It shows that the world does move and that

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\*Read before the Brooklyn Pediatric Society May 27, 1914.

many conservatives, while hugging their conservatism or obscurantism ever so tightly to their hearts are at least beginning to admit that there may be some truth in the more advanced and the radical point of view, and that they are at least willing to give it a hearing.

And should I say something which may go against your grain, something with which you may for the moment violently disagree, then try to be tolerant and permit the idea to pass through your mind that maybe the reader of the paper, who has given the subject special attention, is after all, right, and maybe it is you that are wrong. I do not ask you to accept my opinions, or anybody's opinions for that matter, on authority, but I do ask you to listen to them open-mindedly, to weigh the pros and cons, to try to digest them, and then reach your own conclusions.

The subject which we are to discuss tonight is one of transcendent importance. I know of no single question that is of such far-reaching, vital importance to the human race. Directly or indirectly it touches every man, woman and child—nay more, it touches not only the living child, it touches the child not yet born. If I have devoted so much time to discussion of the subject by pen and by word of mouth, it is because I sincerely believe that upon the proper solution of this question depends, to a great extent, the welfare of the human race, the welfare of those living and of those to come after us.

But before we can discuss any question intelligently we must know just what the subject under discussion is. It is easy to approve or to condemn, but before you have a right to either approve or condemn, before you can do so honestly and conscientiously, you must know what it is I and my followers advocate, what it is we preach and demand.

Briefly it is this. We believe that under our present economic conditions, and under any conditions, human beings should be able to control the number of their offspring.

They should be able to decide how many children they want to have and when they want to have them. And to accomplish this result we demand that the knowledge of controlling the number of offspring, in other and plainer words, the knowledge of preventing undesirable conception, should not be considered criminal knowledge, that its dissemination should not be considered a criminal offense punishable by hard labor in Federal prisons, but that it should be considered knowledge useful and necessary to the welfare of the race and of the individual; and that its dissemination should be as permissible and as respectable as is the dissemination of any hygienic, sanitary or eugenic knowledge.

There is no element of force in our teachings; that is, we would not force any family to limit the number of their children against their will, though we would endeavor to create a public opinion which would consider it a disgrace for any family to have more children than they can bring up and educate properly. We would consider it a disgrace, an anti-social act for any family to bring children into the world whom they must send out at an early age into the mills, shops and streets to earn a living, or must fall back upon public charity to save them from starvation. Public opinion is stronger than any laws, and in time people would be as much ashamed of having children whom they could not bring up properly in every sense of the word as they are now ashamed of having their children turn out criminals.

Now no disgrace can attach to any poor family no matter how many children they have, because they have not got the knowledge, because our society prevents them from having the knowledge of how to limit the number of children. But if that knowledge became easily accessible and people still refused to avail themselves of it then they would properly be considered as anti-social, as criminal members of the community.



As far as a couple are concerned who are well-to-do, who love children, and who are well capable of taking care of a large number, we would put no limit. On the contrary, we would say: "God bless you, have as many children as you want to; there is plenty of room yet for all of you."

And I might as well state here that in this respect we differ from our neo-malthusian friends in European countries with whom we are otherwise in perfect accord. Our European neo-malthusian friends would put a limit to the number of children even of the well-to-do and rich. They claim that the means of subsistence are but limited, that Europe, that is Western Europe, is about as thickly populated as it can be. And they are afraid that the birth of a large number of people, even rich and well-to-do, means the taking out of the bread from the mouths of somebody, from the mouths of the poor. We are not afraid of it. We know that America can support in perfect comfort millions and millions of people. This shows how geography and economic conditions influence our opinions. Our neo-malthusian friends across the sea are actuated in their propaganda more by the fear of a famine that will eventually stare the race in the face if the proper check is not put upon the birth rate.

I, on the other hand, was attracted to the limitation of offspring propaganda by the individual sufferings and misery resulting from too many children which I witnessed among my friends and acquaintances and among my patients in the early years of my practice. Not that I do not recognize that eventually in the future the race will, in self-preservation, have to put a strong check upon its birth rate, but I am dealing, I always prefer to deal, with the present, with the living people of to-day. Somehow or other I have always been of the opinion that if we deal intelligently with the present we can safely let the future take care of itself. I even recognize that some countries

of Europe are even now so overpopulated that a check has become necessary, but I am dealing with the United States and not with Europe; one country at a time is enough. And with this introduction we may proceed.

*The Two Points of View.*—The effects of the limitation of offspring might be discussed under two separate heads: the effects upon the individual family, and the effects upon the race as a whole. But this subdivision would really be an artificial one. You cannot injure or benefit the individual without injuring or benefiting the race, and you cannot injure or benefit the race without injuring or benefiting the individual. The race is not something abstract, separate, apart from the individuals composing it, any more than the body is something different and apart from the cells and organs composing it. The body is healthy just in proportion to the health and harmonious working of its individual cells. If in a race of one million people one person is unhappy and inefficient, that race is one-millionth unhappy and inefficient. If five hundred thousand individuals of that race are unhappy and inefficient, then that race is one-half unhappy and inefficient. And if every individual in that race is unhappy and inefficient the entire race is unhappy and inefficient. It is, therefore, the individual and the individual family that we have to look out for, and if each individual is brought to the highest standard of happiness and efficiency we need not worry about the race; the entire race will be happy and efficient.

*The Spectre—Too Many Children.*—That under our present economic conditions the fear of too many children is a most frightful spectre which terrorizes the ordinary workman and the middle class and professional man, is something which requires no discussion. Anybody who has eyes to see, sees it on every side. There would not be this frenzied search and demand for contraceptive knowledge if this were not so. That an unlimited number of children is

a curse also to the poor, requires almost no argument. There is not a physician who has not had cases in his practice of families which started life in a respectable manner, but which become quickly demoralized, financially and physically, by children coming in rapid succession. Every physician will tell you the gradual change in feelings on the part of the parents with the appearance of each successive child. While the first child and perhaps the second are generally received with genuine joy, unless they come too soon after marriage, the third and fourth are met with indifference, while the fifth and succeeding ones are considered catastrophes, and many a father and mother hope for a miscarriage or pray that it be still-born or be carried off soon after birth. And every physician will tell you of cases in which their endeavors to bring to life a still-born child were not at all considered by the parents, by the father particularly, with favor. More than one physician told me that when practicing artificial respiration on a new-born babe he was told by the father to leave the child alone, that it was not worth while bothering about.

That a family of three or four can live better, more comfortably, on a certain sum per week, say twenty-five dollars, than can a family of six or seven, goes without saying. Only the obtusest mind will deny that, and still it is being denied day after day. A workingman should not have more than two children. Every child after the second is individually and racially a calamity. It means that the mother's health is being exhausted, it means that she cannot attend as properly as she should to her first children, it means that the succeeding children are taking away a part of the indispensable food and clothing from the first children, it means that the first children will not be able to get the necessary bringing up and education that they otherwise would, it means that they will be sent to work earlier than they otherwise would, it means glutting the labor market

with wage-slaves. It short, in my opinion, too many children in other than well-to-do families is a crime. It is a crime against every member of the individual family, the father, the mother, the first two children and the succeeding children, and a crime against society.

*The Bourgeois Remedy.*—This being so, what is the remedy? Two remedies are proposed by our bourgeois philosophers and sociologists. One is that the poor should not marry until they are able to support a family, or they should marry late in life. The advice is as stupid as it is vicious. If the poor, embracing in this term not only the workingman, but many professional men, writers, small business men, etc., were to wait until they could support a family properly, they would not be able to marry while alive. They would have to wait until they went to heaven, or until they were in their second incarnation. But if the advice to marry late were universally followed, it would prove an irreparable injury to the human race. It would mean an indescribable increase in prostitution, in sexual perversions, in sexual weakness, and in venereal disease. The fathers would come to their nuptial beds sapped of all vitality, debilitated, infected. And as late marriages among men means necessarily also late marriages among women, the mothers would be neurotic or psychotic old maids, and what children such unions would give rise to can readily be imagined.

The second advice is to abstain—that married people should abstain from sexual relations. To give advice which we know is impossible of being followed is the acme of fatuity. But if married people were foolish enough to attempt to follow this advice the effects were pernicious. For married people to attempt to abstain for any length of time means to lay the foundation for irritability, weakness, nervousness, or even genuine neuroses, and a cooling or even destruction of the affections. It means more, it very

often means driving the husband into the arms of prostitutes, with the possible risks of venereal disease.

Considered from every point of view, these two pieces of advice, to marry late or to abstain when married, are useless because impracticable and pernicious, because if they could be followed they would result in untold injury to the individuals and consequently to the race.

But a remedy must be had. We have found remedies for most ills that afflict the human organism, and it is only a matter of time when we will find remedies even for those ills that are still baffling us. The only thing that distinguishes the human being from other animals is his intellect. It is by the aid of the intellect alone that we have been fighting and conquering nature, wresting from her and unraveling her secrets, balking her at every step when it is necessary for our welfare. The human intellect has given us remedies which, while permitting men and women to marry at the proper age and to live a normal sexual life as nature intended, still help them to control the number of their children. And to save my life, I cannot see what there is wrong in people who cannot afford to have many children using means which will prevent them from having many, which will help them to have just as many as they wish to have and can afford to have, and just as such times as they wish to have them.

The first objection we are apt to hear when we advocate that the knowledge of the use of preventives be easily accessible is that such knowledge would have dire effects, that it would decrease the population to such a degree that it would soon come to a standstill, then it would begin gradually to diminish and finally to die out—in other words, that the human race would commit suicide. That this objection is worthless we can prove by a consideration of individual families as well as by a consideration of entire nations. Are families who possess a knowledge of efficient and harm-

less preventives perfectly childless? Of course not. There are hundreds and thousands of families now throughout the world who employ artificial preventives regularly, but very few of them are altogether childless. They have one, two or three or even four children. They regulate the time when they want to have the children and their number, but very few indeed decide to remain barren altogether.

That there is a small percentage of men and women who are so devoid of the parental impulse that they would utilize the preventives so as never to have any children I will admit, but I ask you in all seriousness: is it not better for the race that people who are so utterly devoid of that something that they call the parental instinct that they do not want to have any children at all, should not have any? Is a child conceived, born and brought up against the will of the parents a spectacle to be enthusiastic over? On the contrary. In my opinion this fact is rather in favor of the use of artificial preventives, that the race can speedily eliminate those men and women who under no circumstances wish to become fathers and mothers.

When I see to what interminable trouble and expense some men and women go in order to have children; when I see to what tortures and risks, endangering her very life—I am speaking of numerous Cesarean sections—a prospective mother will undergo in order to have a living child, I have no fear that the use of preventives will result in the dying out of the human race.

But we have better proofs—proofs unanswerable and undeniable. Here we have a whole country, Holland, in which the prevention of conception is legally sanctioned, in which the use of preventives is practically universal—and is the country dying out? On the contrary, it is increasing even somewhat more rapidly than before, because we have this remarkable and gratifying phenomenon to bear in mind, that wherever the birth rate goes down the death rate goes down *pari passu*, or even to a still greater degree. This can

be proven by statistics from almost every country in the world. For instance, in 1910 the birth rate in Holland was 32 and the mortality 18, in 1912 the birth rate fell to 28, but then the mortality rate fell still lower, namely to 12, so we see that there is an actual gain even in population, instead of a loss. And in New Zealand, where the sale of contraceptives is practically free, the birth rate is now 20 and the mortality rate is 10. Does that look like race suicide? On the contrary, there is a steady increase of the race of 10 per cent, while sickness and death of children, with their attendant economic and emotional waste, are reduced to a minimum.

This decrease of the death rate is very easy to understand, because the fewer children a mother has the better care she can take of those she does have. The economic condition of families with fewer children is better than of families with many children, speaking, of course, of the same strata of society. And the mother's health not being exhausted by too frequent child-bearing, nursing and bringing up of children, her health is better and she gives birth to healthier and more resistant children. In short, from every point of view the use of artificial means of preventing unsuitable pregnancy is a benefit to humanity.

I admit that when the knowledge of the use of preventives becomes really universal the rate of increase of the human race will become very much slower. But there is certainly a great difference between a slow increase and suicide. Why is it necessary that the human race should increase in numbers rapidly? I permit myself here to quote a paragraph from another paper of mine on the same subject:

"Is an increase in numbers so very desirable? In fact, is it at all desirable? Ask yourself that question, if it never occurred to you before. Is there any greatness or any happiness in numbers alone? Is China with its more than four hundred millions any happier than we, who can boast of

only ninety millions? And does China from any and every point of view amount to as much as does the United States, which has only about one-fifth of its population? And would not any one of you prefer to be a citizen of Italy, or Norway, or Sweden, or the little republic of Switzerland, which has fewer inhabitants than has New York City, than to be a subject of the brutal, murderous Russian Czar who reigns over one hundred and forty millions? No, there is no honor, and there should be no pride, in numbers merely.

I prefer a commonwealth of five million people, all of them healthy and contented, all doing congenial work, all having work to do, all materially comfortable, all educated and cultured, all free to think and free to express their thoughts, with high ideas of a greater future and a higher humanity, to an empire or a republic of a hundred millions, all fighting, all struggling, all cutting each other's throats, all in fear of starvation, with senseless luxury on one hand and shameful poverty on the other, with killing idleness on one hand and killing overwork on the other, with bursting over-satiation on the one hand and exhausting starvation on the other; with millions tramping the streets and highways naked and hungry, with millions of human beings illiterate, held in the clutches of superstition, selfishness and brutishness; with thousands and thousands of imbeciles, criminals, perverts, grafters, prostitutes—female prostitutes who sell their bodies and male prostitutes who sell their minds, their ideas and convictions—I prefer, I say, the above-described small to the above-described larger commonwealth.

No, numbers alone, I repeat, do not count. With Spencer, I despise that vulgar conception which considers a large population, large territory, and big commerce as its highest ideal, its noblest aim. With Spencer, I would say that, instead of an immense amount of life of low type, I would far sooner see half the amount of life of a high type.

There is one point, however, that should give all true



friends of humanity cause for alarm. While the birth rate has decreased markedly in every civilized country in the world, in those countries in which the discussion of the preventives is prohibited, and in which the obtaining of preventive means is most difficult, the decrease in birth rate has been most marked in the higher and in the well-to-do middle and professional classes. In other words, in countries like England and the United States, the most marked diminution of the birth rate has been among the aristocracy, among the cultured classes, among artists, lawyers, physicians, clergymen, merchants, etc., while it has been but slightly diminished among the workmen and among the poor and very poor. In fact, you can take it as an axiom that the number of children is in inverse ratio to the social standing, culture and earning capacity of the parents. In still other words, it means that those best fit to breed children, those most likely to transmit a desirable heredity, and those most able to bring up children, are breeding less and less, while those least able to and least capable of bringing up children and giving them a decent education and a decent start in life, and those most tainted with disease, with alcoholism, mental instability, epilepsy, insanity, moronism, etc., keep on breeding unrestrainedly. What that means for the future of a nation the most sluggish thinker can easily perceive. It means that if no check be put to this state of affairs eventually the mental and physical standard of the race will be lowered, that the race would begin to degenerate.

This is something which no true friend of humanity can contemplate with equanimity. But what is the remedy? To exhort, beg or command the better classes to become more prolific is, as you all know, perfectly fatuous. Nobody whose economic means or inclinations are against having many children will sacrifice himself or herself and have six or eight children instead of two or three, just in order to save the race. Nobody who has acquired the knowledge

of limiting his offspring will throw that knowledge away, for altruism has not reached and never will reach this stage, and besides every man and woman will think: Oh, our two or three children will not make any difference. In other words, the better classes, or if you prefer the so-called better classes, will continue to have a very limited number of children—so the only remedy we have at command is to instruct the lower classes to make use of the same means so that they may not by their unrestricted brooding overwhelm the better elements, pollute the race-stock and add to human misery.

*It Will Lead to Immorality.*—This objection seems to be the strongest one in the opinion of some even otherwise very rational thinkers. I have heard it from freethinkers, from socialists, and from some very sincere, cultured and educated men. People who have gotten over the “race suicide” bugaboo still consider this a serious objection to the popular spread of the knowledge of contraceptives. They are deeply afraid that if this knowledge became universal, immorality, by which they mean female unchastity, would become universal. They are convinced that what keeps our girls and other husbandless women chaste is the fear of pregnancy and nothing else. In other words, they openly acknowledge that our entire adult womanhood is mentally unchaste and what keeps a large proportion of them from physical unchastity is not morality, but the fear of consequences.

To this argument, which next to the race suicide argument, seems to be the most formidable, and to a good many the most unanswerable, leaving out the answer that virtue which is such by fear is no virtue at all, and that virtue that needs continuous guarding is scarcely worth the sentinel, my answer is that the fear of pregnancy is not the chief deterrent. What keeps most of our unmarried women chaste is the general bringing up, the general and religious

education, the custom of the country, heredity, influence, and the general monogamous tendency of the female.

On a certain percentage of the female population all these factors exert no influence now, and the only result the knowledge we advocate would have is that illicit relations would be entered upon with less terror, perhaps, with less anxiety than they are now, but far from increasing immorality it would rather diminish it. I will explain what I mean. The fear of pregnancy may act as a deterrent in a number of cases to the performance of coitus in the natural, normal way, but instead of that it leads to numerous perversions of the sexual act, which are as a rule extremely injurious to the health of both partners. I know whereof I am speaking. I see daily the results of these sexual perversions in married couples, in engaged people and men and women who just keep company, and in men and women who are just acquainted; and I can assure you that while the fear of pregnancy, as I said, does act as a deterrent in many cases, say even in a large number of cases, it does not act as a check against sexual immorality. On the contrary, it increases it, because I consider sexual perversions entered into out of fear of pregnancy more immoral than natural relations.

And if some women are bound to have illicit relations, is it not better that they should know the use of a harmless preventive than that they should become pregnant, disgracing and ostracizing themselves and their families, or that they should subject themselves to the degradation and risks of an abortion, or failing in this take carbolic acid or bichloride, jump into the river or throw themselves under the wheels of a running train? I may be wrong, my views may be strabismic, but I know that I am kinder and humaner than those cruel bigots who demand that any woman who has indulged in illicit relations should expiate her "crime" by death or by all the humiliation, ostracism and suffer-

ing which are now imposed upon the mother of an illegitimate child.

No, I am quite sure that the knowledge of the use of preventives will not increase immorality, using that term as a synonym of female unchastity. It will merely change perversions and injurious practices into natural relations, which is a gain and not a loss.

*It is Injurious.*—This objection we still meet quite frequently, and we hear it not only from the laity, who are not supposed to know any better, but from physicians who are supposed to know better. A whole catalogue of ills are given which are likely to result from the use of preventives of conception: congestion, inflammation, cancer, nervousness, etc. This statement is unqualifiedly false. Physicians who make such statements do it either because they are ignorant or because they know only of some methods that are injurious, or confuse prevention of conception with abortion, or they do so deliberately to mislead the people, to prevent them from engaging in what they call an immoral, ungodly and demoralizing practice.

There is absolutely nothing injurious in the proper modern methods. More than once has it been noticed that women who suffered with congestion, leucorrhea, catarrh of the cervix and vagina, were improved by the use of modern contraceptives. Of course, there is no doubt that there are injurious methods of prevention, that certain mechanical devices and poisonous solutions are in use which may in time produce injury to the parts. But are you going to condemn harmless methods because there are methods which are not harmless? Because decomposed food is injurious are you going to condemn all food? Because an alkaline soap is irritating are you going to condemn the use of all soap? It is absurd, and still this is the kind of argument the opponents of the limitation of offspring have recourse to.

*It is not Safe.*—Our opponents claim that there is no ab-

solutely sure means of the prevention of conception; that the best of them fail once in a while. This is true and isn't true. It is true in the sense that there is not one single means that is suitable for everybody, but it is not true that a certain means will not prove absolutely efficient in a certain given case forever.

And this uncertainty is due to the fact that the whole thing is done secretly, clandestinely, as if a crime were being committed. If the thing was free and legal, if the matter could be discussed freely in the journals, the best methods would be learned quickly enough, and each one would have no difficulty in finding the means most appropriate to herself.

But even as it is now, the methods are infallible in 98 or 99 per cent of cases, and while this may be no consolation to the hundredth case who happens to be caught, we do consider that for the race as a whole it is even now a means of the most wonderful potency for good.

*It Produces Sterility.*—This is another one of the fallacies which are heard frequently from clerical and medical opponents of the limitation of offspring. It could have only originated from the confusion of prevention of conception with abortion, or again perhaps from the fact that those opponents have only known of methods which were particularly brutal and atrocious.

We know that the proper methods of prevention have absolutely no effect whatever in causing sterility. As long as woman uses the preventive she is safe, as soon as she gives up the use of the preventive she becomes impregnated. Sometimes a single omission of the use of the preventive causes impregnation, as many women have found out to their sorrow.

*It is Against Religion.*—I am not dealing here with pious hypocrites, but some very earnest and sincere people have brought up this objection, that the prevention of conception is reprehensible because it is against religion. I know of no

place in the Bible where the prevention of conception or limitation of offspring is prohibited. I do not claim to be a great student of the Bible, but when I spoke recently at St. Mark's Church this point was brought up and the minister said distinctly that he did not know, at least he could not think at the time of any place in either the Old or the New Testament which contained anything condemning the use of preventives.

But assuming that it did contain an explicit injunction against their use, I would simply ask those whose conduct is guided by the Bible to refrain from using those means, but not to attempt to force their conduct upon people who are guided by different standards of morality.

And besides when a man brings in religion as an argument then no further discussion is possible. I do not sneer at religion, I can even sincerely respect a sincerely religious person, for I know that many of them are both earnest in their convictions and humanitarian in their endeavors, but I simply say that this is a question which we cannot discuss. Religion is a matter of faith and not reason; you believe so and so and that is all there is to it. Another man believes differently. Let him get his salvation in his own way as long as he does not injure you.

*It is Immoral.*—This argument is the same as the religious argument. It all depends on what you call immoral. Why the use of a harmless mechanical or chemical agent before or after coitus is more immoral than the use of the same or similar thing by a woman suffering with leucorrhea, I cannot for the life of me see. Immoral is something that is injurious to the community, to another individual, or to the person himself. As I am showing in this paper by the use of irrefutable arguments and figures, the use of such contraceptives is not injurious to the persons who are using them, they are certainly not injurious to one's neighbors, and far from being injurious to the community they are helpful to it

by raising the hygienic, eugenic and economic standards. So wherein does the immorality consist?

I am afraid that those who bring up the immorality argument have created a fetish which they would find great difficulty in maintaining on its pedestal if forced to present real arguments. But, again, as I said in discussing the religious argument, some people have peculiar ideas as to what is moral and immoral, and if one has made up his mind that a certain action is immoral, it is no use discussing matters. Such people are generally impervious to argument. As to those men who go even further and say that wives who use preventives are nothing but monogamous prostitutes, and I have heard that argument from apparently sane people, one of them even calling himself a socialist, I can only say that with such people it is useless to argue. We can only give them tit for tat by calling them imbeciles.

*The Moral Standard of Those Who Make Use of or Advocate the Use of Preventives.*—Philippics have been delivered and pamphlets and books have been written against those who make use of preventives and against those who advocate the rational limitation of the number of offspring. They have been called immoral, decadent, degenerate, egotists, low creatures devoid of responsibility.

It would be easy to answer by slinging epithets back at our critics and calling them fools and imbeciles incapable of logical reasoning, unwilling to be convinced and crawling into a corner when they are presented with arguments which they are unable to answer, when they are shown proofs which they are unable to refute. But calling names, while a great personal satisfaction occasionally and an excellent safety valve once in a while, is no argument. .

I will admit that among the upper classes, and among a certain percentage of the middle classes, the decision to limit the number of children or to avoid having any at all, does not flow from very high motives, that this decision is even selfish, egotistic in the common sense form of the term, that

it flows from a desire on the part of the parents not to have their comfort or personal pleasures interfered with, that they do not want to have to go through the trouble of bringing up children. But this accusation is distinctly untrue when applied to the vast majority of the middle, professional and working classes. Far from being due to a lower morality, it is due to higher morality. Far from being due to a lack of responsibility, it is due to a heightened sense of responsibility. The animals, and the people nearest to them, have no such responsibility; they breed unrestrictedly, leaving nature or God to take care of their offspring or to kill it off as they see fit. Thinking parents, however, are so imbued with the sense of responsibility in bringing a human being into the world under our present social and economic conditions, that we cannot blame them, but we must praise them for refusing to bring too large a number.

*What Life Means at Present to the Millions.*—I am not an extremist, I do not take one stratum of society, namely the lowest, and try to make believe that all humanity is as wretched as that lowest stratum. I always pride myself on my sane and well-balanced radicalism, and I am certainly not a pessimist. To me personally Fate has not been particularly cruel, in fact many think that it has been particularly kind. I am distinctly an optimist. I believe that this world is going to be the most glorious world to live in and there will not be an unhappy creature in it, but to assert that this is the best of all possible worlds at the present time, is to make a statement which is stupidly, palpably false. Its falseness can be proven in five minutes by going outside and just looking about us.

I know that there is plenty of joy, plenty of happiness, plenty of pleasure in this world, but isn't it true that the pain overbalances the pleasure in this world many hundred-fold? Is it not true that we have many millions of working people in our country who have really nothing to live for, working from morning to night merely for their material



necessities, merely to keep body and soul together, but without any refining influences, without any artistic or intellectual pleasures? Is it really reprehensible for a working family that earns eighteen or twenty dollars a week to refuse to have more than two children, because they know that if they have more than two the first two will have to be neglected to a certain extent, and to a certain extent will have to be deprived of food and clothes which they need? Could you blame them even if they refused to have any children, because having no pleasures whatever in life, disgusted at the continual, monotonous drudgery of their work, they refuse to bring other creatures into the world that would have to live the same cheerless, hopeless life?

What is there for the intelligent class-conscious workman, holding a twelve dollar or fifteen dollar job, or having to hunt for a job half of the time, to induce him to bring more wage-slaves into the world? And talk to the really intelligent middle class or professional man, the man who has learned to look at the world with clear eyes. You will find that he complains as bitterly, some of them even more bitterly, than does the workman. Until twenty-five or twenty-eight he has to prepare for a career. With our increased educational requirements the age at which professional men graduate and begin to earn a living is advancing further and further from year to year. For ten or fifteen years it is a bitter, hard, sixteen or eighteen-hour a day struggle to build up a practice, to get a clientele, or to build up an independent business. And in this desperate struggle nine-tenths fail, and lead to the end of their days the lives of drudges, just merely making a living. About ten per cent come out victorious, get to the top; but when they have reached the top they find by looking at the family Bible that they are already forty-five or fifty years old, that they are already on the decline, or will approach it within a very few years, and that the material independence, position, fame, etc., do not give them the same pleasure and satisfaction that they ex-

pected to enjoy when they were struggling for them so ceaselessly and perhaps so relentlessly.

That there are a few people who seem to have been born with silver spoons in their mouths, for whom everything is prepared, who have nothing to struggle for, and to whom life seems to be an inexhaustible source of fun and pleasure, I admit. But their number is so small as to be entirely negligible, and is much more, is a thousand times, overbalanced by the men and women on the other end of the scale to whom life is a continuous source of suffering, pain, nay agony and torture, from the very day they are born until they are put away in a cheap pine coffin in the bosom of dear mother earth.

I believe that to become convinced that this is not the best possible world, and that for many millions of people this life is nothing but a round of monotonous, senseless drudgery even if devoid of actual pain and suffering, it is only necessary to take a trip, not to the slums, but just in the subway, during rush hours. I thank my fates that it is but very seldom that I have to ride in the subway. but when I do, particularly if in the rush hours, the spectacle fills me with inexpressible sadness.

Just look at the faces—not a happy, contented face in the ten cars of the express train. Just analyze them. Tense, gloomy, dissatisfied, grouchy, distinctly unhappy, cruel, stupid or vapid, such are the expressions of practically all the faces you see there. And what are they all doing there? For what reason are they jostling or being jostled, crushing or being crushed, trampled or being trampled upon, twice a day, morning and night of every week-day? For what reason? To go down into factories or shops or offices to do useless and disagreeable, or useful but uncongenial, or in general injurious work for eight or ten or twelve hours a day. And what for? Merely to make eight or ten or twenty dollars a week, just to support the body sufficiently to be able to work again. It is work to have what to eat

and drink, eat and drink to be able to work. And this grind goes on day after day, week after week, year after year, without any prospect of change for millions of people.

It is to me one of the great tragedies of our present system that people have to spend almost, if not the entire day, merely to earn enough to make a living. The work necessary to make a living should be the incidental work, and it certainly should not take away more than four hours a day from any man or woman. Of course, if a man loves his work, that is another matter. Then he may work eighteen hours a day until his eyes close in sleep from sheer exhaustion.

No, this is not a pleasant world to live in at the present time, and it is a sign of a putrid morality and petrified mentality to curse and to throw stones at those members of the middle and working classes who believe that it is their duty to themselves, to their children, to humanity at large, to limit the number of their offspring within narrow bounds. Far from being a sign of low morality the conscious control of the number of children is a sign of high morality. And I will repeat what I said before, that far from being a sign of a lack of responsibility it is a sign of high sense of responsibility, of foresight, of love, of the true feeling of humanitarianism.

*The Prevention of Conception and Abortion.*—To this point I must devote a few lines, for the greatest obstacle we meet in our prevention of conception propaganda is the confusion, both on the part of physicians and on the part of the laity, of prevention of conception with abortion.

Just as the statute books speak of the two in the same sentence, meting out the same severe punishment for both, so the physician and the layman often speaks of the two as if they were one and the same thing practically, as if the one were as objectionable or as criminal as the other, and as if believing in one necessarily meant accepting the other.

This almost universally prevalent confusion is, as I said.

one of the greatest obstacles in the spread of the prevention of conception propaganda, and it is important to clarify this confusion and to shed some light on the subject. Not only do contraception and abortion not belong in the same category, but I can truthfully say that one of the principal reasons, one of the strongest motives that makes us advocate contraception so persistently and so assiduously is because we want to do away with the evil of abortion as far as we can, for we do consider abortion a terrible evil.

Not being engaged in the lucrative practice of the abortionist, never having committed an abortion myself, I am free to speak of the subject calmly and frankly and am not under obligation to become hysterical in condemning it publicly as are many of those who are practicing it secretly. I say frankly that there are cases, many cases, in which not to induce an abortion is much more cowardly, much more cruel, much more dishonest, than it would be to induce one. The peace of mind, the honor, the very life itself, and not only of one person, but of several persons, very often depend upon the artificial emptying of the uterus. And under our present social and economic conditions the professional abortionist, much as we may despise or condemn him, has more than once proved a real benefactor, in saving the sanity, the health and the life of a frantic young woman and her frantic family.

But admitting all that, I still consider abortion a real, a serious evil. It is degrading and humiliating to the woman. It is always accompanied with some risk, if not to the life at least to the health of the person (though the dangers of the operation when performed under proper conditions have been greatly diminished they have not yet been entirely eliminated, and it is a question if they ever will be) and it is apt to lead to abuses. For this and various other reasons all true humanitarians are endeavoring to do everything possible to diminish the evil of abortion, which is constantly on the increase. And one of the most effective

remedies to diminish the evil is the universal knowledge of the proper means of prevention of conception.

And just as it is disgraceful for our statute books to speak of prevention and abortion in the same sentence, meting out the same punishment to both, so it is disgraceful for any physician to get up and talk of the two in the same breath as if they belonged to the same category.

Doesn't any person with any sense see that the two are entirely different, not only in degree, but in kind? In inducing abortion we destroy something already formed; we destroy a fetus or an embryo, a fertilized ovum, a potential human being. In prevention, however, we merely prevent chemically or mechanically the spermatazoa from coming in contact with the ovum. There is no greater crime or sin in this than there is in simple abstinence, in refraining from sexual intercourse.

And while everybody is, of course, entitled to his opinions and anybody may entertain any opinions on the subject of prevention that he chooses, nobody has a right to confuse the issues and speak of prevention and abortion as if they were the same or similar things, and I trust that in the discussion that is to follow my esteemed opponents will bear this point in mind.

If I were engaged in a debate on the subject, I would thus summarize the case for the defense, and I believe that my opponent would find himself in great difficulty to contradict or refute my arguments. I would say:

1. The reason many men marry now at such a late age is because they are afraid they would not be able to support a wife with many children. If the men knew that by safe and harmless means he could limit his children to the number he wants to have and to a time most convenient, they would marry much earlier and they would marry much oftener; and this would necessarily have a great effect in diminishing the number of bachelors and old maids. This

would in its turn have a great effect in diminishing prostitution with its terrible concomitant evil, venereal disease.

2. Every physician knows that too frequent child-birth, too frequent nursing, and the sleepless nights that are required in bringing up a child, exhaust the vitality of thousands of mothers, make them prematurely old or turn them into chronic invalids. The knowledge of prevention would do away with this evil.

3. On account of our vicious laws, which prevent a free discussion of preventives and which make the imparting of knowledge on the subject so difficult, many women use improper and injurious methods of prevention and thereby injure their health or risk their very lives. Were a free discussion of the subject permissible this evil would be done away with.

4. Similarly there are numberless thousands of men who have become pitiable weaklings, pitiable sexual neurasthenics, from coitus interruptus, or from other injurious methods which they practice through ignorance of better and harmless methods of prevention. Universal knowledge of the proper means of contraception would save these men from a deplorable fate.

5. This would be one of the most important points in summing up my case. The evil of abortion is one of the most terrible evils in our society. It kills thousands of unmarried and tens of thousands of married women. If it does not kill, it often infects, maims and weakens for life. The public will never know just exactly how many victims are sacrificed every year to this terrible Moloch. For, to the honor of the medical profession, be it said, that the physician who is called in to treat a girl or woman dying from a criminal abortion, very often at great risk to himself, protects the good name of the poor woman, and does not give on the death certificate the true cause of death. And whenever I hear of a case of a woman dying from an abor-

tion, as I do not infrequently, I blame not the woman—on the contrary, my heart goes out in pity to the poor victim of our brutal laws—but my blood boils with indignation at society or the state, which mercilessly and pitilessly sacrifices every year so many of its mothers. The knowledge of the prevention of conception would do away entirely with the evil of abortion, or would reduce it at least to a minimum. Every investigator has found that wherever means of prevention of conception are most difficult to obtain, there abortions are at their highest. Where preventives are easy to obtain, where their sale is permitted by law, there both abortion and illegitimacy are reduced to a minimum.

6. We know that a good many married men who patronize prostitution do so not on account of wickedness merely, but to a great extent they are driven to it by the fear of impregnating their wives. And what is more—and this is an illuminating commentary on our pitiful social conditions—many wives know it and not only say nothing, but actually encourage their husbands to visit prostitutes, only to leave them alone, such is their terror of another and another and another pregnancy. Only last week I read in a German publication that it is not an infrequent occurrence among the lower classes in Germany for the wife who earns her own money to give a part of it to the husband in order that he may go to other women and leave her alone. What this means in increased risk of venereal disease needs no detailed discussion. A knowledge of the means of prevention would obviate this terrible evil. Not only our sanitarians, but moralists who care more for man's soul than for his body, should from this point of view alone be in favor of prevention.

7. We now come to an extremely important point. The word eugenics is on the lips of everyone, people who know what it means and people who have the most fantastic notions as to the purport of eugenics and what eugenists stand

for. We know perfectly well that there are people whom it is a crime to permit to bring children into the world. About the unquestionably insane, imbeciles, morons, and perverts, we need not worry in this respect. Society will have to take care of them by sterilizing them or segregating them. But there are people who can very well get married, provided they do not bring children into the world. Among such we may mention people suffering with tuberculosis, epilepsy, perhaps cancer and certain mental abnormalities. We have no right to deprive those people of any affection in their lives. And besides, it would be worse than useless to do so. If you raise the barriers for entering matrimony too high, if you make your requirements for a marriage certificate too rigid, those people will be sure to enter into illicit unions, and this means an enormous increase in prostitution and illegitimacy, two undoubted evils. But teach those people the proper means of prevention of conception and the problem is solved. For of one thing we may be sure, leaving out of consideration the imbeciles, morons and degenerates who could not be taught to use any precautionary measures, and whom, as I said before, society will have to protect itself against in a different way, there are no parents who would deliberately bring children into the world whom they had reason to fear would be tainted with hereditary disease. No sane parents wish to bring into the world handicapped, maimed and deformed children.

What I said just now also applies to thousands of syphilitics. There are thousands of syphilitic men and women who are perfectly safe as far as their partner is concerned, but are not safe enough to become parents. They cannot infect, but they must not give birth to children for fear that the children may have the taint in them. The use of preventives settles this problem and saves the world from thousands of pitiable hereditary syphilitics.

Or is it better to permit tainted parents to bring syphi-



litic, epileptic and insane children into the world than to use preventives? One revered gentleman who criticised my teaching said that it was. He said it was much better to have the streets full of syphilitic, maimed and defective children than to accept the doctrines of Dr. Robinson.

And in speaking of the subject of hereditary syphilis I cannot refrain from mentioning a case that I saw but three days ago, namely last Friday. It was the young mother's fifth child. The first two children were born dead, the third and fourth died very soon after birth, and at last the distressed and unsophisticated mother was overjoyed at giving birth to a child that lived. The child is a year and a half old now. It would have been better for it and for society if it had been born dead or died soon after birth—much better, of course, if it had never been conceived. For it was one of the most pitiable, one of the most sickening objects that we are called to look upon in our practice. I know of no more pitiable spectacle than a baby suffering with hereditary syphilis. This child was full of sores and ulcers, the lip was eaten away, it had a characteristic syphilitic snuffles, breathing loudly and with great difficulty, in short it was a pitiable sight. The cause of all this misery is the brutal father. The mother has, of course, also become syphilitic.

Now what are you going to do with that couple? Tell them to abstain? Just try to make such a brute abstain. He would simply go to another woman, infecting right and left. The only way you could make him abstain is by locking him up in jail. If you cannot do that, then in the name of decency and common sense teach such couples of which there are thousands in our broad land, at least not to bring any more wretched, diseased creatures into the world.

8. Then again there are thousands of women who suffer from diseases which are not hereditary, which are not dangerous in themselves, but become dangerous only when pregnancy occurs. Such are cases of advanced heart or kidney

disease, cases of very narrow or deformed pelvis, cases of tendencies to eclampsia or puerperal convulsions. As long as these women do not become pregnant they get along very well. To impregnate them means to aggravate their disease, to hasten their end or actually to drive them to the grave. As I have to tell many a time to some men, to impregnate their wives would be equivalent to murder. The knowledge of the prevention of conception would obviate these potential murders.

I could present many more points for the defense, but I believe even with the points I have presented so far, my opponents would have a very hard case to refute or demolish. I therefore feel perfectly justified in repeating and concluding with my motto, namely that: There is no single measure that would so positively, so immediately, contribute toward the happiness and progress of the human race as teaching the people the proper means of the prevention of conception.—*Long Island Medical Journal*.

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### **Editorial.**

#### **A PROGRESSIVE MOVEMENT IN THE MEDICAL SCHOOL OF JOHNS HOPKINS UNIVERSITY.**

Delivery was recently made at Baltimore of securities valued at \$1,500,000 presented by the General Education Board to the Medical School of Johns Hopkins University. This gift is to be known as the William H. Welch Endowment for Clinical Education and Research.

The securities were accepted on behalf of Johns Hopkins Medical School by Mr. R. Brent Keyser, Chairman of the Board of Trustees. The actual transfer of the principal of this fund to Johns Hopkins University signifies that an important and novel feature relating to the gift will have become an accomplished fact, namely, that the organization of the Medical School should be so arranged that the entire income from this fund could be utilized for the support of full-time teaching and research in the departments of Medicine, Surgery, and Pediatrics.

The express proposal made by the trustees of the Johns Hopkins

University was that in reorganizing these three departments, professors and their assistants should hold their posts on the condition that they become salaried university officials, and that they accept personally no fees whatever for any medical or surgical services which they might render.

In order that the time and energy of the professors thus safeguarded might be properly utilized under favorable conditions, the endowment was made large enough to provide adequate salaries to attract the ablest professors and also to provide them with assistants, well-equipped laboratories, books, and other necessary facilities.

Simultaneously with the completion of the reorganization of the Johns Hopkins Medical School in accordance with this new plan, the university trustees have chosen Dr. Theodore C. Janeway, hitherto Professor of Medicine at Columbia University, to become Professor of Medicine of the Johns Hopkins Medical School, the position once held by Sir William Osler.

The chair of Surgery at Johns Hopkins, under the full-time arrangement, is to be occupied by Dr. William S. Halsted, most of whose surgical career has been passed in the Johns Hopkins Medical School, where since the establishment of the Johns Hopkins Hospital, Dr. Halsted has been its Surgeon-in-Chief and Professor of Surgery.

The Chair of Pediatrics will be occupied by Dr. John Howland, who was called a year ago from the Professorship of Pediatrics at Washington University, St. Louis, and appointed physician in charge of the Harriet Lane Home for Invalid Children, this institution being the pediatric clinic of Johns Hopkins Medical School.

Johns Hopkins will become the first medical school to be placed upon the full-time basis in all departments. A grant of \$750,000 has been made to Washington University, St. Louis, and of \$500,000 to the Medical School of Yale University, upon an understanding that they also reorganize their work so as to put their clinical teaching upon a full-time basis.

The full-time scheme is a plan to ensure to hospital work and medical teaching the undivided energy of eminent scientists whose efforts might otherwise be distracted by the conflicting demands of private practice and clinical teaching. The full-time scheme is an appeal to the scientific interests and devotion of the clinician, and it is significant that the first three full-time posts created have been filled by men of conspicuous professional standing, all of whom have made great sacrifices in order that they might enjoy all conditions for clinical teaching and investigation.

It should become of increasing consequence to the public that the training of those studying to become doctors should be in charge of

the most competent men obtainable, devoting their entire time to this work. Greatly increased efficiency and thoroughness should result to the alleviation of suffering and the cure of disease.

#### PLAGUE IN NEW ORLEANS.

Since the recognition of the first case of plague in the Crescent City, June 24, ult., at this writing (July 27) twelve additional cases have been diagnosed, some contiguous to the first case, others at a distance of eight or ten city blocks. The prompt recognition of the first case, together with the active measures taken by the local and State Health officials, very efficiently aided by the National Public Health and Marine Hospital service, under at first the personal supervision of Dr. Rupert Blue, Surgeon-General, and subsequently Assistant Surgeon General Dr. W. C. Rucker and others members of the Public Health service who have been left in charge, we can very confidently anticipate a prompt and satisfactory prevention of anything like an epidemic. Among other active measures taken has been the bringing of quite a number of experienced men from San Francisco to co-operate with the force already actively at work. Plague work is more efficiently done when performed by a special corps of men who are not distracted by other sanitary duties. The work is too important and too exacting to be made a part of the routine duties of a general sanitary corps. The men in immediate charge of the campaign should be entirely free to devote all their time and attention to plague work.

From the *Public Health Reports* of July 17 we learn that the measures being taken to eradicate plague and to prevent its spread from the city are as follows:

"All vessels leaving New Orleans are fended off from the dock eight feet and rat guards thirty-six inches in diameter are applied to all lines and cables connecting the vessel with the dock. All gangways are guarded by watchmen while down. Prior to loading all vessels are fumigated to destroy rats, sulphur being burned to make a 4 per cent sulphur dioxide gas in the spaces fumigated. All general freight shipped overland and oversea is inspected to ascertain whether there is a possibility of its harboring rats or mice.

"Foci of plague, both human and rodent, are being treated by evacuation; that is, removal of the inhabitants; by fumigation of all buildings; and by deratization by the summary destruction of rat-harboring places, intensive trapping and poisoning, and enforced rat proofing.

"Passed Assistant Surgeon Creel has been made executive officer in charge of the working force. Surgeon Corput is in charge of

measures applied to outgoing vessels. Passed Assistant Surgeon Simpson is in charge of the field work in the city. Assistant Surgeon Williams is in charge of the laboratory. That portion of the city bounded by Canal Street, Claiborne Street, Louisiana Avenue, and the river has been divided into three districts, to be placed in charge of Assistant Surgeons Kearny, Carmelia, and Akin. July 10 the inspection of the bodies of all persons dying in the city was begun. This inspection is made daily between the hours of 6 and 9 p. m.

"The force making the rodent survey consists of 188 men engaged in trapping. They have in use 12,779 traps, which they are systematically setting throughout the suspected district and adjoining territory. Gangs of men have been started distributing rat poison. A laboratory has been fitted up and the laboratory examination of the rats trapped is in full force. On July 16, 1,039 rats were caught. The number of rats being caught is increasing at the rate of about 100 daily. The residents of the city are being informed of the nature of the situation and the necessity for their frank co-operation. This is being done through a publicity campaign and daily addresses at meetings. Effective rat-proofing laws have been drafted and submitted to the city authorities for enactment."

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#### BORAX WILL PREVENT THE TYPHOID FLY FROM BREEDING.

As a result of experiments, the specialists of the Department of Agriculture at Washington have discovered that a small amount of ordinary borax sprinkled daily on manure will effectively prevent the breeding of the typhoid or house fly. Similarly, the same substance applied to garbage, refuse, open toilets, damp floors and crevices in stables, cellars or markets, will prevent fly eggs from hatching. Borax will not kill the adult fly nor prevent it from laying eggs, but its thorough use will prevent any further breeding.

The investigation, which included experiments with many substances, was undertaken to discover some means of preventing the breeding of flies in horse manure without lessening the value of this manure as a fertilizer for use by the farmer. It was felt that if some means of preventing the breeding of flies near a human habitation could be devised, the diseases spread by these filthy germ carriers could be greatly reduced. While the "Swat the fly campaign," traps and other devices for reducing the number of typhoid-carrying flies are of value, they are of less importance than the prevention of the breeding. It was realized, however, that no measure for preventing the breeding of flies would come into common use unless it was such that the farmer could use it on his manure pile without

destroying its usefulness for growing plants, and without introducing into the soil any substance that would interfere with his crops.

As a result of experiments carried on at the Arlington Farm, in Virginia, and New Orleans, La., the investigators found that 0.62 of a pound of borax, or 0.75 of a pound of calcined colemanite (crude calcium borate) would kill the maggots and prevent practically all of the flies ordinarily breeding in eight bushels of horse manure from developing. This was proved by placing manure in cages and comparing the results from piles treated with borax and from untreated piles. The borax, it was found, killed the fly eggs and maggots in the manure and prevented their growth into flies.

The amount of manure from a horse varies with the straw or other bedding used, but 12 or 15 bushels per week represent the approximate amount obtained. As borax costs from 5 to 6 cents per pound in 100-pound lots, it will make the cost of the borax practically 1 cent per horse per day. And if calcined colemanite is purchased in large shipments the cost should be considerably less.

If interested in this subject, write to the Department of Agriculture, Washington, D. C., and request a copy of *Bulletin No. 118*.

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DR. ROBINSON'S VIEWS:—"AUDI ALTEREM PARTEM"—  
"STOP LOOK AND LISTEN!"

A considerable amount of our space is given this month to the paper read by Dr. Wm. J. Robinson, editor of the *Critic and Guide of New York*, before the Brooklyn Pediatric Society, May 27 ult., and reprinted from the *Long Island Medical Journal* of July, 1914, embodying as it does the views of one of the most advanced, logical and original medical writers of the present times on a most important subject to which he has given special study; and while he does not ask that his opinions be accepted, on authority, he does, nevertheless, request that his argument be listened to open-mindedly, the pros and cons weighed, digested, and then your own conclusions reached.

Many and diverse views have been and are being daily advanced for the betterment of mankind, the uplift of the human race, and for making this world more enjoyable, agreeable and satisfactory. It is only by the free and full discussion of any subject that advancement and progress can be attained in successful and satisfactory degree; and while the many or few of our readers may not agree with Dr. Robinson, we would remind them that many of the most satisfactory, well recognized and accepted views of progress of to-day were absolutely tabooed and ridiculed by able, conscientious and learned thinkers in the past; including the imprisonment of Galileo,

the sneers at Christopher Columbus, with many others far too numerous to mention; and that a century ago Schiller wrote:

“Some time philosophy no doubt,  
A better world will bring about,  
But until then, a little longer  
We'll blunder on through love and hunger.”

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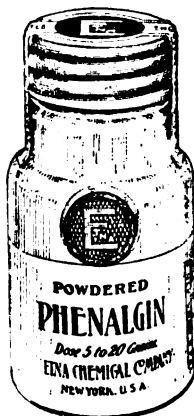
**THE PHYLACOGEN TREATMENT OF HAY FEVER:**—While Mixed Infection Phylacogen was formally introduced to the medical profession in 1912, it was some months later before adequate data as to its value in the treatment of hay fever were available. In 1913 hundreds of cases were reported, details of many of them appearing in the medical press during the latter months of that year. The results from these clinical observations were highly significant, showing a surprisingly large percentage of recoveries and warranting the belief that in Mixed Infection Phylacogen the physician had acquired a formidable weapon for his fight with one of the most stubborn diseases that he is called upon to treat.

Mixed Infection Phylacogen is administered hypodermatically. The initial dose should be small, the usual procedure being to begin with a 2-Cc. dose subcutaneously or a ½-Cc. dose intravenously. The reactions occur more quickly, and are ordinarily more severe, following intravenous injection.

“In giving the subcutaneous injection,” one writer explains, “I usually select as a site the insertion of the deltoid or the area just below the scapula. The latter seems to be the ideal spot, as absorption takes place very readily and the complaints from the local reaction are much less. I repeat my injection either daily or on alternate days, the interval to be determined by the clinical condition of the patient. It is seldom necessary to administer more than four to six injections, the symptoms often disappearing after the second or third injection. Almost immediate relief is noted by the patient. The irritating discharges from the eyes and nose are diminished in amount, the sneezing is lessened, the dyspnea is relieved, and the patient usually sleeps comfortably. All patients that I have treated successfully have remained well through the season. I have yet to record a failure, but I have not had a sufficient number of this class of cases as yet to warrant a positive claim that this remedy will act in all forms of this disease.”

Mixed Infection Phylacogen is supplied in 10-Cc. bulbs. As is doubtless well known to most physicians, it is a Parke, Davis & Co. product.

**PHENALGIN—A DEPENDABLE ANALGESIC:**—The general medical practitioners of the country are using Phenalgin more extensively than ever before. The reason for this is easily found in the exceptional efficiency of this well-known remedy as a prompt and harmless reliever of pain. Unquestionably, one of the noblest missions of the physician is to alleviate physical suffering, even though he cannot always eliminate it.



A short time ago, recourse to opium and some of its derivatives was the only reliable means of satisfactory analgesia. One does not need to mention the fearful results that all too often followed the exhibition of this insidious drug. As appreciation of the effectiveness of Phenalgin has extended, the use of opium and its preparations for the relief of pain has materially diminished, and now the hypodermic syringe is rarely employed except in extreme or emergency cases.

Surely this is a triumph for modern therapeutics, and those responsible for Phenalgin take no little pride in the part they have played in helping to free humanity from the thralldom of opium. It is a significant fact that, in spite of the enormous use of Phenalgin during the past eighteen years, there is not a single authenticated case of serious ill effects from this remedy, when employed remedially. As a matter of fact, there are few remedies of established potency that are so notably free from deleterious action.

All in all, Phenalgin is one of the most valuable additions to the modern armamentarium. It is skillfully and carefully manufactured, and the physician can bank on its constant and unvarying uniformity. Its remedial value, every practitioner can easily prove to his entire satisfaction, and it is no idle statement that the manufacturers of Phenalgin ask its therapeutic preferment on no other basis than its demonstrable uniformity, safety, and pain-relieving power.

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**DRUG TREATMENT OF DIABETES:**—In the treatment of diabetes mellitus opium, of course, has long held first place among therapeutic agents. In the hands of many physicians Papine (Battle) has produced identical results with those derived from the administration of opium or codeine. The employment of small doses at the beginning, and thereafter increasing until the required effects are produced or until narcotic symptoms are exhibited, when the dose will be held stationary or reduced, is the practice usually followed.



**SOME PLAIN FACTS ABOUT A SOPORIFIC:**—For nearly forty years we have been making for the medical profession what we believe to be the ideal sedative, soporific agent, and the fact that its use at the hands of physicians steadily grows seems to be the best proof of its therapeutic value.



Until within late years we put this product on the market under the name of Daniel's Concentrated Tincture of *Passiflora Incarnata*, but pirates began counterfeiting and forced us to protect the reputation our product had earned, and accordingly we gave it the distinctive name, *Pasadyne*.

We grow our own plants on a large acreage and have done so all these years. In the manufacture of our product we draw upon every pharmaceutical advance, for we want to maintain the highest possible standard for *Pasadyne* (Daniel).

Hundreds of able clinicians have proven to their own satisfaction that *Pasadyne* (Daniel) is equal in therapeutic power to the older somnifacients, and is free from their disadvantages. Whenever you need a sedative or a soporific, you may prescribe *Pasadyne* (Daniel) with the fullest assurance that it will produce the results you want. It will not fail you.

A sample bottle may be obtained by addressing the Laboratory of John B. Daniel, 34 Wall Street, Atlanta, Ga.

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LIPPINCOTT'S MAGAZINE for AUGUST, 1914:—A beguiling complete novel is "The Undertow," by Neith Boyce. This is timed to the season when summer girls are raving over good-looking life-guards; but the hero in "The Undertow"—even while outwardly a classic statue in flesh and blood—is in other respects a new type of life-saver. He proves an irresistible enigma to a little daughter of the rich on the other side of the social gulf—which she quickly bridges—and these unconventional meetings make a fascinating story with an unexpected climax. "The Child That Was Taken to Raise," a Pennsylvania German story of keen humor and pathos, by Elsie Singmaster; "Selling the Second-Hand Car," a man tells how he made out on the deal, by Charlton L. Edholm; "The Makings of a Husband," love and humor in a new combination, by Edwin Marange; "Captain Matt," the struggle of a man to give up liquor—under a certain incentive, by W. R. Lighton; "The Arrest-Warrant," a dramatic scene incident to a murder mystery in West Africa, by Hugh Lofting; "A Princess in Calico," or our soldiers in the Philippines—not without a romantic

side, by Hapsburg Liebe; "Kipling's Conception of India," by an Indian Student. Singularly striking and interesting is this presentment of the subject from such a source, and no one who reads Kipling can afford to miss this chance to get a new viewpoint on his opinions. "Walnuts and Wine," "Finance," "Ways of the Hour," "Automobile," etc., are as attractive as usual.

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"TASTELESS SYRUP OF QUININE":—Febriline is the trade name given by the Paris Medicine Co. to a Tasteless Syrup of Quinine of its manufacture. This product has been before the profession for many years and is in large demand. And as it was for a long time the only preparation of its kind on the market it came to be spoken of and prescribed simply by the name of "Tasteless Syrup of Quinine." The result was that the physicians frequently got an imitation product with not very satisfactory results. The mistake was made in not specifying the name "Febriline" when this article was wanted. And as a further precaution against getting the imitation products it is suggested that prescriptions should read as follows: "Febriline 2-ounce Original Bottle." In this way the doctor is sure to get the genuine preparation. There is still another reason why the 2-ounce Original Bottle should be prescribed. Bulk Febriline when not sold within a reasonable time is liable to become sour, which develops the bitter taste of the quinine. Then again, unless it is shaken up every time a small quantity is poured from a large bottle, uniformity of strength is not attained. It is, therefore, best for the physician and his patient that in prescribing this product that he should specify "Febriline 2-ounce Original Bottle."

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TUBERCULOSIS LAWS IN NEARLY ALL STATES:—Legislation dealing with tuberculosis has been enacted in forty-eight states and territories of the United States, according to a bulletin published by the National Association for the study and prevention of tuberculosis. Only in Arizona, Idaho, Nevada, Wyoming and Alaska has the subject received no legislative consideration.

State tuberculosis sanatoriums to the number of forty-two have been established in thirty-three different states. Special laws providing for the establishment of local hospitals by municipalities or counties have been passed in fourteen states. In thirty-four states, laws are in force providing for the reporting and registration of living cases of tuberculosis. In four states, New York, New Jersey, Wisconsin and Minnesota, special laws give state and local health authorities power to remove and detain tuberculous persons who menace the health of their families or associates.

**DANGER DUE TO SUBSTITUTION:**—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The more recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

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**TEACHER SAYS SHE IS OPPOSED TO TEACHING SEX HYGIENE:**—In the August *Woman's Home Companion* a Texas school teacher writes a letter in which she explains in part, as follows, why she is opposed to the teaching of sex hygiene in the public schools:

"If a child should come to me with a question I would answer him frankly, but not before a class of mixed students. Instruction in sex hygiene should come from the parent, or from some mature friend.

"While I am sure I hold the love and confidence of some of my pupils, I am not sure I hold the confidence of all to the extent that they would appreciate my discussing delicate subjects with them. I would not refuse a child information, but it would be given in confidence, and by no means do I regard it my business to inform all my pupils in sex hygiene."

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**THE NEW DRESS OF THE ANNALS OF SURGERY:**—Owing to the continually increasing amount of material of value, offering for publication in the *Annals of Surgery*, the publishers have found it necessary beginning with the July, 1914, issue to enlarge the size of the page and also to somewhat reduce the size of type in which the original contributions have heretofore been printed. The enlarged size will also enable the publishers to make a better display of the illustrations which are such an important feature of the *Annals* contributions.

The July issue has a choice collection of important articles of exceptional value to the general practitioner as well as the surgeon. It is a splendid example of the way this publication continues to set the pace in surgery.

**MODERN DAY ADMINISTRATION OF CODLIVER OIL:**—In olden days whilst the great nutritive value of codliver oil was fully recognized and every effort made to place it at the patient's disposal, yet the lack of a palatable product too often made its employment unsatisfactory or even impossible. For many years this drawback of codliver oil deprived the profession of the best of tissue foods and it was not until pharmaceutical science devised means of making the oil palatable that it began to come into its own. Cord. Ext. Ol. Morrhuae Compound (Hagee) is the most valuable and widely employed of the preparations of codliver oil, and largely so because the medical profession has long recognized its superior worth. It may be given over long periods of time without causing gastric distress.

**THE AMERICAN ROENTGEN RAY SOCIETY** will meet in Cleveland at the Hotel Hollenden on September 9 to 12, inclusive, 1914. The program promises to be of unusual interest and value, and includes a paper by Dessauer, of Frankfort, on the subject of artificial production of gamma rays; Coolidge, the inventor of the Coolidge tube, Shearer and Duane will also read papers. The subject of deep therapy and the production of the hard rays will be fully presented and discussed. The rest of the program will be taken up by a large number of papers on general subjects. The medical profession is cordially invited to attend these meetings.

**TONGALINE:**—"The experiments of Drs. Charteris and Latham prove that the presence of ortho and para-cresotic acids as impurities in artificial salicylic acid cause intense gastric irritation and depression of the heart; furthermore since artificial salicylic acid and its derivatives are eliminated in the urine they are destructive to the kidneys and should therefore never be employed for internal administration. None of these objections apply to salicylic acid from natural sources."

Attention is called to the fact that all the salicylic acid in the Tongaline Preparations is made from natural sources.

**NEW OFFICERS OF THE A. M. A.:**—President-elect, Dr. William L. Rodman, of Philadelphia; first vice-president, Dr. D. S. Fairchild, of Iowa; second vice-president, Dr. Wisner R. Townsend, of New York; third vice-president, Dr. Alice Hamilton, of Chicago; fourth vice-president, Dr. William Edgar Darnall, of Atlantic City; secretary, Dr. Alexander R. Craig, of Chicago, re-elected; treasurer, Dr. William Allen Pusey, of Chicago. Three thousand three hundred and eighty-three members registered at this meeting. The place chosen for the next meeting is San Francisco.

## Selections

**LIQUID PARAFIN:**—*American Medicine* for April calls attention to the fact that the increasing popularity of liquid paraffin as a laxative is one of the astonishing things in modern therapy. It can scarcely be called a fad or fashion, for its use is based on empiric results. A few years ago no one heard of it, and now its consumption is enormous. No doubt in a short time we shall find contra-indications or bad results which will limit its use, but at present it seems to be a permanent and valuable weapon in the fight against intestinal intoxication, and its myriad fatal sequelæ, containing no oxygen, is not saponified or emulsified, and produces no fatty acid to irritate as in the case of olive or cotton seed oil, once so popular. It contains no stimulants to the muscle and has no irritative or osmotic action to increase the fluid content of the feces. It acts purely as a lubricant, supplementing the normal mucus, and thus materially assists the peristaltic action of the muscles. All of it may be recovered from the feces. The dose varies from a teaspoonful to two tablespoonfuls from one to three times a day, preferably a half hour before meals. It is cumulative in action, and the full effect may not be experienced for several days or even two weeks if small doses are taken, and moreover the results may persist for a week or more after ceasing to take it. There is some evidence that by relieving the strain on the intestinal muscles it actually strengthens them; by removing the irritation of hardened feces it restores the normal mucus; by facilitating evacuations it re-establishes the lost habit of regular and periodic movements; by coating the fecal masses it restricts absorption of poisons; and it is not accompanied by pain, colic or straining. It is easy to take, being devoid of taste or odor, and of the consistency of glycerine. Many object to the oiliness, and various mixtures have been devised to conceal this characteristic, but a little effort will overcome the ob-

pection to the pure oil. It must be freed of all sulphur compounds, acids and fluorescent lighter hydrocarbons, all of which are more or less poisonous. It sometimes escapes from the rectum, but the sphincter soon becomes educated. It has been proved useful in simple stasis, visceroptosis, hemorrhoids, mucous colitis, pregnancy and the exasperating constipation of infancy and childhood. We must be on the lookout, however, for contra-indications, for it is a comparatively new remedy, and there has not been sufficient time for all its effects to become known.

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THE FATALITIES FROM SALVARSAN:—The eight deaths following the intradural administration of neosalvarsan-serum for nerve syphilis in one hospital in Los Angeles, all occurring within forty-eight hours, have brought home to the medical profession more strikingly than ever before the fact that salvarsan is not alone a useful drug, but a dangerous one as well. At least 275 deaths are known to have followed its administration, while in all probability the total number is several times this, since nearly every physician can tell of cases which have not been reported.

In a recent book upon this subject, Wechselsmann brings out the important point that very many of these deaths from salvarsan may be attributed to the combined or alternated use of salvarsan and mercury. He declares that anything delaying the excretion of an arsenical preparation brings out the toxic action of that drug and may cause a fatal issue. For this reason, he strongly advises against administering salvarsan *following* the giving of mercury, inasmuch as the latter drug interferes with normal kidney function and thereby delays excretion.

The moral of his observation is, that before using salvarsan a careful chemical and microscopical examination of the urine should be made in every instance. Also, salvarsan and mercury in large dosage should never be employed together. And, finally, when the combined treatment seems

to be indicated, the arsenical preparation always should be given first, and never, under any circumstances, after a course of treatment with a mercurial.

There is no denying the value of salvarsan, and we have no disposition to minimize the importance of Ehrlich's great discovery. Yet time has only served to teach the thoughtful physician caution in the use of this remedy, the injudicious administration of which we now know to be fraught with dangers little dreamed of by the average physician. Mercury still stands first as a specific remedy for syphilis. Not only is it safe; but its curative value is undoubtedly greater than that of salvarsan. The latter drug has its own place—but, for the present, it may well be left to men who are thoroughly familiar with its field and know best how to use it.

He who goes safely will go far. Our advice to the general practitioner is, keep in mind that popular maxim, "safety first," even in treating syphilis.—*Amer. Jour. of Clinical Medicine*.

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PITUITRIN AS AN ECBOLIC:—Pituitrin exerts a more pronounced oxytocic action in multiparæ than primiparæ. Its administration seems to close that gap of time intervening between the true onset of labor and the final stage of delivery, which frequently causes unnecessary loss of time to the physician and a waste of energy on the part of the patient. Of the author's total number of 77 cases, 27 were primiparæ and 50 multiparæ. Of the 27 primiparæ, 14 had normal delivery, while in 13 cases forceps were applied. In the 13 cases the pains were increased by the pituitrin to a very marked degree, though not sufficiently to complete labor; 7 of the number were of abnormal presentation. In the 50 multiparæ the pains were markedly increased, with but one exception. Forty-four were delivered in twenty minutes to two hours. In 6 cases forceps were applied, 3 of which were abnormal presentations.

Pituitrin leaves the patient in much better physical condition after labor is completed. The child also seems to be in better general condition. Of the multiparæ very few had after-pains, and where these were present they did not last more than ten to fourteen hours. The author noted that the uterine contractions remain more permanent and the lochia flows quite normally after pituitrin. Since beginning its use, he has entirely discarded ergot and has had but one case of hemorrhage, which was controlled promptly by packing the vagina with cotton tampons. This case followed a forceps delivery, and, when it was once controlled, the hemorrhage did not return.

In administering pituitrin it is important to use a fresh preparation. The syringe must be entirely free from other substances, particularly alcohol, which seems to interfere with the drug's action. The author finds that better results follow subcutaneous injection well under the skin in the gluteal region than in the muscles or fatty tissues. It is also important not to give chloroform before the child's head is pressing upon the perineum, as its early administration retards the action of pituitrin, delays labor, and necessitates a second injection. *Benson (New Orleans Medical and Surgical Journal, June, 1913.)*

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#### PRACTICAL AND SUCCESSFUL TREATMENT FOR DIABETES:—

Some months ago a long article appeared in *The New York Medical Journal*, giving the remarkable experience of Doctor Beveridge, of New York, in the treatment of diabetes with the Bulgarian-bacillus tablets. More than 100 cases were reported, and relief was the rule, while in many cases sugar disappeared from the urine. Another important testimony to the value of this method of treatment comes from Dr. L. Napoleon Boston, who, in the April 25 issue of the same journal gives a report of thirty cases of diabetes, all private patients, treated by him between January 1 and September 15, 1913; these patients varying in age from 20



years to 60 years. All cases were well marked, 12 at least severe, and they showed an average loss of weight of 11 pounds. The percentage of sugar in the urine varied from less than 1 per cent up to 5 per cent. In only 13 did the quantity of sugar in the urine fall below 1 per cent.

Treatment consisted in controlled diet, according to the usual plan; the use of codeine sulphate, oxgall, and pancreatic extract, as indicated (which suggests the well-known bilein and pancreatin compound with which many of our readers are familiar); but the special phase of the treatment which attracts our attention is the fact that Doctor Boston used the Bulgarian bacillus with success. Of the 30 cases, only 3, or 10 per cent, failed to show improvement as a result of the method of treatment employed. In many of the cases the improvement was very marked. Fifteen cases are reported in detail. Of these cases, Nos. 3 and 7 are the only ones in which the sugar did not disappear entirely after treatment. Only one of these cases died.

On the whole, the method of treatment employed by Doctor Boston seems a very promising one. Certainly the routine use of Bulgarian bacilli in the treatment of diabetes seems to be fully warranted.—*Amer. Jour. of Clinical Medicine.*

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SCARLET RED FOR GASTRIC ULCER AND TUBERCULOUS LARYNGITIS:—Drs. Davis and Dening (*Johns Hopkins Hosp. Bull.*) have used scarlet red by internal administration for gastric ulcer with success. They administered a 1 per cent solution in olive oil. It was found that scarlet red was non-toxic, not injurious to the kidneys, and not purgative.

Learning of this Dr. Erastus Corning, of Albany, N. Y. (*Albany Medical Annals*), thought it might be useful in tuberculous laryngitis. Dr. E. E. Hinman consented to use

it at the Albany Tuberculosis Sanatorium. He used equal parts of sesame oil and vaselin, with a dye strength of 10 per cent applied twice daily to the larynx. The drug is not at all irritating and the applications are not distressing. They did not observe anything of a toxic nature or any untowards symptoms.

The first and most surprising result obtained was a very prompt relief of pain. This was noted in every case where pain had been present. It was reduced in all cases, and in some entirely relieved, so that patients were able to eat and drink with comfort. In all cases but two, both of whom were far advanced before treatment was instituted, and both dying very soon thereafter, ulcerations showed a tendency to heal. The general laryngeal congestion of several cases soon subsided and the hoarseness improved.

A few patients presented only infiltrations and edema. After a few weeks of this treatment with scarlet red the swelling grew markedly less. Of course, it is to be borne in mind that these were the more incipient cases, and that they improved generally during this time, and therefore the local improvement may have been as much due to the general betterment as to the local effect of the dye, but it is reported because it is very possible that this drug may be shown to have some selective action through the unbroken mucous membrane. The investigations and observations have been from the clinical standpoint, and therefore the pathologic findings are not reported.

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**GASOLINE AS A THERAPEUTIC AGENT:**—Stephens enumerates many uses to which ordinary motor spirit may be put. In pediculosis capitis, it is the remedy *par excellence*, not only terminating the life of the parasite, but having a good solvent action on the nits as well. As a scalp cleanser it is most valuable; in alopecia areata it has proved useful; in ringworm and in scabies it succeeds where other remedies

have failed. Its great penetrating powers, together with its solvent properties, make it useful in many skin affections. Burns of all kinds, and especially those produced by the spluttering of hot metal as steel, copper, or spelter works, are greatly benefited by the early application of gasoline. At the author's suggestion, several of the works in his district have a quantity of gasoline ready at hand in a spray, whence it is blown on to the wounds, which are then covered with a dusting powder of iodoform, salicylic acid, and boric acid. Its application by means of a spray tends to the cleanliness of the method, which, in the case of cuts, is of especial value, as it allows of the stitches being put in at the surgery without any further preparation. The value of gasoline in burns is, in the author's opinion, due to the fact that it destroys all germs that have been conveyed from the filthy clothes to the wound, and at the same time interferes with the broken-down, half-burnt skin cells, from which enzymes have been set free. These enzymes, being closely related to ptomaines, are undoubtedly responsible for the poisoning which always takes place in metallic burns, whereby the process of healing is prolonged for weeks. The author adds the necessary word of warning as to the inflammability of this substance.—(*Dublin Journal of Medical Science.*)

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**RATIO OF PHYSICIANS:**—The new Polk's Directory will contain as did the issue of 1912, the names of upward of 140,000 physicians. This is for the United States, including possessions and Canada, representing a population of about 108,000,000 in 1910 and about 115,000,000 at present. The general ratio is, therefore, about one physician to 820 population. For average states, the ratio, is of course, much lower, but, with allowance for the number of retired and non-participating physicians included, is approximately 1 to 700.—*Med. Fortnightly.*

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**PHOSPHO-MURIATE of QUININE**  
**TONIC AND RECONSTRUCTIVE**  
**With Marked Beneficial Effect Upon the Nervous System**  
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EDITOR AND PROPRIETOR

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NASHVILLE, SEPTEMBER, 1914

NO. 9

### *Original Communications.*

#### CANCER OF THE BREAST.\*

BY ROBT. CALDWELL, M.D., OF NASHVILLE, TENN.

In presenting this paper I shall not attempt to advance anything of scientific interest, but shall endeavor to arouse a fuller realization of our responsibility and thereby stimulate us to increase our usefulness to the many noble women afflicted with this dread malady—cancer of the breast. It

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\*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, Aug. 4, 1914.

is unquestionably true that cancer is rapidly increasing. In the census district of the United States, the number of deaths from cancer increased from 64 per hundred thousand in 1900, to 76 in 1910. In Massachusetts, where statistics have been kept for a longer period, the records show that the number of deaths has almost doubled since 1875. Despite great effort to discover the etiology of cancer, little progress has been made and equally as little advance made in the treatment and cure, where definite malignancy has been clinically established.

While the above statement is true, it lies within the power of each of us to save many unfortunate victims from months of unbearable pain and misery and an untimely death. If this be true, should we not arouse ourselves from our lethargy and save a large, very large per cent of these victims? Should we feel our responsibility when our attention is called to a tumor in a woman's breast, as we do when our patient has pneumonia, typhoid fever, appendicitis or pulmonary tuberculosis, the death rate in the next five years, instead of continuing to increase would be materially decreased.

If we would not tell women with tumors in the breast what to do in a half-hearted manner, but would insist upon them following our advice, just as we do in typhoid fever or in other acute diseases, the number of lives saved would be by no means insignificant. Not one of us would be content to tell a typhoid patient to go to bed, as though it made little difference whether he was in bed or about his business; but we would say to him that he must go to bed, and would continue to repeat the injunction until the patient submitted. If we should apply the same rule to every woman with a questionable tumor in her breast the number of valuable lives conserved would indeed be great.

I doubt if the profession fully realizes our inability to stay the progress of advanced cancer; they have been misled into a feeling of false security by the numerous opera-

tions which have been advanced looking to the removal of all the infected tissue with wide dissection of non-infected glands, etc., until they have forgotten that in spite of all these apparent advances, the mortality and cure is very little reduced over that of our forefathers, which is the recent opinion of no less an authority than Dr. J. B. Murphy.

A recent abstract in *Surgery, Gynecology and Obstetrics* quoting Brown, gives the following frightful result in a series of 121 radical operations, 85 cases being traced, shows 6 recurrences within a year, 46 within two years, 22 within three years, 10 within five years, and one single patient alive at the end of fifteen years. While this is relatively true it unquestionably shows the gloomy side to too great a degree, for other good authorities show better permanent results.

No one will contradict the statement that cancer primarily and in its incipency is a local disease and curable by removal if done at this time. We should then expend the major portion of our energy in getting the consent of our patients to early operation for herein lies our greatest hope of relief to-day. We are all hoping for some serum that will cure all cases of cancer, but while this is being done by the few, let the rank and file save the early cases now, for we already know how to save them.

Some one after the examination of the histories in a large series of cases makes this report, which is a serious reflection upon the profession, that the average time from the discovery of the lump by the patient, to operation to be little more than a year; while the average time from the time the physician's attention was called, was found to be eight months. This would seem to reflect upon the profession who fail to appreciate the importance of early recognition and early operation.

Education of the profession and the laity is our hope to reduce the toll of human life to cancer of the breast. There are numerous articles in recent literature, as to the best

means of educating the laity to recognize the early symptoms of all cancers; my belief is that if the profession could be thoroughly impressed with the fact that we could save these cases by early attention, the necessary education would be quickly absorbed by the laity who have always shown the greatest willingness to coöperate with the profession, and the fear of producing cancer-phobiacs would be reduced to the minimum. If we would discuss freely with our patients the dangers of abnormal growths, not only in the breast, but elsewhere in the body, the time would soon arrive when a new growth would not be permitted to remain over night.

If the question should be asked me, do you recommend the removal of every tumor in a woman's breast—I should unhesitatingly reply yes, and at the earliest possible moment.

Chas. L. Gibson says, "My plea in regard to neoplasms of the breast is they should all be held to be malignant until their innocence is proved and the compliment is, let no guilty tumor escape."

Dr. Finney has said, "Any tumor in a woman's breast is better out than in," to which all will readily agree.

It has been said in many ways and on many different occasions that all breast tumors in women past thirty-five years of age, are either malignant or will become malignant, and I am constrained to believe the statement would be equally as true without the age qualification.

Dr. Bloodgood says after a most careful investigation of all the facts available, from about 1,300 cases of tumor of the breast we may formulate the following conclusions: If every woman over twenty-five years of age were to seek surgical advice the moment she felt a lump in the breast and the surgeon explored this lump at once, the probabilities are that the lump would prove to be benign in about thirty-three per cent of cases. In a series reported by Sidney Scott, out of 1,450 tumor of the breast cases, 1,051 were malignant, which supports the conclusions of Blood-

good admirably. In the light of these astounding facts why should we not advise, yea, insist upon the removal of every breast tumor? The question at once arises how extensive shall the removal be? Shall we be content with simple enucleation of the tumor? This is to be determined by the microscopical findings at the time of operation. No tumor of the breast should be removed without subjecting it to a very thorough examination, by this I mean the examination of many sections from every portion of the tumor. Frozen sections can be made while the patient is still under the anesthetic and if the report comes back from the laboratory positive, then we should proceed to remove the entire breast with thorough and complete dissection of the axilla. Should the report from a hurried frozen section examination be negative, then we should return the patient to bed after the enucleation of the tumor, to await the results of a thorough and complete examination as above suggested. If the report is still negative we may tell our patient that all is well with her, but should the report from this further examination, which will usually be a few days later, prove to be positive, then the patient should at once be taken to the operating table and the complete removal of the breast and the dissection of the axilla be effected. You say, why not be content with the removal of the breast in these early cases? This would be sufficient if we had any way of determining the time metastases occur; but since we cannot do this, the only safe rule to follow in the presence of malignancy is to make the widest dissection possible consistent with the preservation of life and limb.

Let us now look at the results of our labors if the above rules are followed. Bloodgood reports 100 per cent cured of the least malignant variety—adeno-carcinoma—while in the more malignant types the percentage of permanent cures is 85 per cent. These are results obtained in cases that he is pleased to term clinically benign. Note the marked drop in the percentage of cures when the patient



and her medical adviser have adopted the plan of wait and see. In other words, have waited until the tumor is clinically malignant. Adeno-carcinoma that is removed while clinically benign yields 100 per cent of cures, while in the same type that is clinically malignant only 64 per cent of cures are reported, and with the more malignant form drops to 33 per cent when clinically malignant. Is not the great difference in the results obtained sufficient to stimulate us to a renewed determination to remove the great responsibility resting upon us as a profession? If we could realize that our sins of omission are just as great, if not greater, than our sins of commission, we would doubtless be more careful. There is not one among us but who, should he be responsible for the death of a patient by the administration of an overdose of medicine, would spend many sleepless hours regretting his error; yet many of us go complacently about our duties, day in and day out, with the knowledge that this or that indispensable mother has a tumor in her breast which is not only almost certain to take her life, but to take it after months of untold suffering and weeks of hopeless agony.

The certain time to cure cancer is before it is cancer, hence by the removal of every tumor we will prevent many benign neoplasms from becoming malignant; here the trite adage that an ounce of prevention is worth more than a pound of cure is again proven true.

Under all the existing circumstances, what are we now doing for all cases of cancer of the breast? We are saving only one out of five; this includes the inoperable as well as those operated upon.

Of the operated cases we are saving about two out of five.

I do not think the profession as a whole is putting a large enough number in the inoperable class, which has brought surgery into disrepute to a certain effect. Of this Dr. Mayo has the following to say: "In cancer too large a proportion of patients is accepted for operation without ex-

planation, at a stage when there is no possibility of cure and when the patient or their families should have been informed of the hopeless condition. If left without operation, they would have been living examples of ill-advised delay instead of the unsatisfactory results of ill-advised surgery."

Dr. Deaver also has this to say: "When popular opinion demands immediate operation on the discovery of a lump in the breast; when physicians are taught to think of breast tumors in terms of operability, and when misguided humanitarianism no longer prompts the surgeon to attempt injudicious operations, the present lack of faith in the surgery of this disease will give away to a healthy optimism."

If by this short paper I have stimulated you to not only advise every woman with a tumor in her breast to have it removed, but to insist and continue to insist upon its removal until she consents, it will more than fill its mission.

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### THE TEST OF TIME.

BY OSCAR F. BAERENS, M.D., PH.G., OF ST. LOUIS, MO.

When a medical student has learned the fundamental principles of medicine and surgery and assimilated them, he is usually a safe man to send to the bedside with a pencil and pad of blanks. These fundamentals are the fruits from the tree of experience and constitute the physician's most valuable possessions.

As a teacher I have learned that maxims and aphorisms impress themselves upon the minds of my students more readily than a lengthy discourse and it has always been my custom to interpret them in my discourses and clinical lectures on diseases of the ear, nose and throat.

Limiting, as I do, my practice to these diseases, I as a matter of course, am more familiar with the requirements and needs of patients of this class and I have learned that cleanliness in addition to being next to godliness, constitutes about 60% of the treatment of simple catarrhal conditions of these structures. In this era of rapid fire phar-

macy the doctor is almost daily the recipient of samples and literature pertaining to them and much of his valuable time is consumed by the detail men and representatives of manufacturing pharmacists. While it is not denied that hosts of these pharmacals are meritorious to a greater or less degree, it can neither be argued that the average life is too short to carry on a series of laboratory and clinical experiments to verify the statements of their producers. I believe it to be most profitable to thoroughly familiarize one's self with a given number of standard preparations and then to use them whenever and wherever indicated. During my experience as a pharmacist I have had ample opportunity to learn the merits of properly prepared pharmacals and I believe that I know one of these when I see one. In Glyco-Thymoline I have found a preparation upon which the body medical has placed the seal of approval and one calculated to meet the requirements of the medical practitioner's varied needs. The preparation is too well known by reason of its world-wide (I use this term advisedly) use, to necessitate or warrant a description or analysis here, nor do I propose to speak for others beside myself. It is, however, a pleasure to state that for the past eight years I have used this preparation to the exclusion of all others in my work at the clinic and in private practice whenever I wanted a mild cleansing antiseptic detergent remedy. During the period of time I have a large number of cases on record which I could detail would space permit, but I must desist and limit myself to a few which I will offer to show why I confine myself to this single remedy and leave it to the reader to determine the value of my judgment.

Mr. G. C. H., age 37, travelling salesman, consulted me in comfort for some time. Complained of frequent attacks of reference to his "catarrh," which had given him much headache, occasional sore throat and incidentally mentioned the fact that his sense of smell was failing him. I examined his nose carefully and found him in the first stage of beginning atrophic rhinitis. The tissues looked dry and

drawn, there were some crusts which were very adherent and had some odor. When detached, which was with difficulty, the mucous membrane showed a tendency to bleed. I spent some time in rendering the affected parts perfectly clean, using a solution of Glyco-Thymoline and water equal parts, warmed to proper temperature. He was further instructed in the use of the little K. & O. Nasal Douche which he continued to use daily. I gave him general instructions as to his habits, diet, way of living, and he left me. Saw him several months later while passing through the city, and he came up to the office and I looked him over again. To my great surprise the atrophy had been unmistakably arrested in its progress, his throat was normal, he not being obliged to hawk so incessantly any more, and his sense of smell had returned completely. Here is a case which was entirely restored by the conscientious and diligent use of Glyco-Thymoline.

Fred H. K., 26, vocalist, came to me complaining of his throat, which troubled him considerably in his work. Stated that he had received treatment from three or four physicians without receiving any benefit. Said previous treatment consisted in cauterizing the tonsils; throat no better for all this. Upon examination found nose normal and pharynx in fair condition, and in the face of all I had learned from previous treatment was puzzled for a few moments. Completing my examination with the small mirror passed up behind the soft palate, I noticed a deep ulcer high up in the naso-pharynx, completely hidden from view by the velum palati. Everything at once became clear to me. Time and again I succeeded in getting results when others failed because I took the trouble to inspect the naso-pharynx, a cavity very much neglected. There was only one thing to do and one way to do it. Glyco-Thymoline was ordered to be used with equal parts of warm water as a douche for the nose. Patient readily learned the trick of closing up the cavity and allowing the medicament to remain in contact with the diseased parts for quite a while. In two weeks

this patient was well of a trouble which threatened to cause him to abandon his vocal work, and which had caused him considerable expense, pain and loss of time. I number him among my most grateful patients.

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#### AMERICAN PROCTOLOGIC SOCIETY.

*Sixteenth Annual Meeting, Held at Atlantic City, N. J.,  
June 22 and 23, 1914.*

President, Jos. M. Mathews, Louisville, Ky.; the Vice President, Jas. A. MacMillan, M.D., Detroit, Mich., in the chair.

Officers elected for the ensuing year: President, Louis J. Krouse, M.D., Cincinnati, Ohio; Vice President, Collier F. Martin, M.D., Philadelphia, Pa.; Secretary-Treasurer, Alfred J. Zobel, M.D., San Francisco, Cal.

Executive Council: Jas. A. MacMillan, M.D., Detroit, Mich., Chairman; Louis J. Krouse, M.D., Cincinnati, Ohio; Lewis H. Adler, Jr., M.D., Philadelphia, Pa.; Alfred J. Zobel, M.D., San Francisco, Cal.

The place of meeting for 1915 will be San Francisco, Cal. Exact date and headquarters will be announced later.

The following were elected Associate Fellows of the Society: Dr. William H. Axtell, Exchange Block, Bellingham, Wash.; Dr. Rolla Camden, 915 Avenue of the Presidents, Washington, D. C.; Dr. Descum C. McKenney, 1250 Main Street, Buffalo, N. Y.

The following is an abstract of the principal papers read:

*Extracts from the Report on Proctologic Literature, from March, 1913, to March, 1914. By Samuel T. Earle, M.D., of Baltimore, Md.*

In Samuel T. Earle's review of Proctologic Literature from March, 1913, to March, 1914, he quotes from the following authors, giving the salient points from each of their papers:

Percival P. Cole, M.B., Ch.B., F.R.C.S., England. (*Brit-*

*ish Medical Journal*, Vol. I., 1913, page 431.) "The Intramural Spread of Rectal Carcinoma."

Robert A. Bachman, M.D., Newport, R. I., Surgeon U. S. Navy. (*Journal of American Medical Association*, Vol. L., 1913, page 1154.) "A New Method for Hemorrhoids."

Jerome M. Lynch, M.D., New York City. (*The American Journal of Obstetrics and Diseases of Children*, February, 1914, page 322.) "Blocking the Sympathetic by a Method other than Spinal Anesthesia to prevent shock in the combined operation for Cancer of the Rectum, or Recto-Sigmoidal Juncture, with some Improvements and Modifications of technic."

Charles R. Robins, M.D., Richmond, Va. (*The Old Dominion Journal of Medicine and Surgery*, May, 1913, Vol. XVI., page 236.) "Sliding the Rectum in the Cure of Various Defects."

Granville S. Hanes, M.D., Louisville, Ky. (*Kentucky Medical Journal*, Vol. XI., June 15, 1913, page 516.) "Anal Pruritus Treated by Operation; Report of Case."

Frederick H. Williams, M.D., Boston, Mass. (*New York Medical Journal*, Vol. XCVII., 1913, page 875.) "Electricity in Rectal Diseases. A Neglected Resource in Their Treatment."

T. F. Riggs, M.D., Pierre, S. D. (*The St. Paul Medical Journal*, Vol. XV., page 461.) "Fistula-in-Ano: Its Rational and Successful Treatment."

P. Lockhart Mummery, F.R.C.S., England. (*The Lancet*, Vol. II., 1913, page 72.) "Operation and After-Treatment of Fistula-in-Ano."

Harvey B. Stone, M.D., Baltimore, Md. (*Annals of Surgery*, Vol. LVIII., 1913, page 647.) "Immediate and Late Results of the Whitehead Operation for Hemorrhoids."

Daniel Fisk Jones, M.D., Boston, Mass. (*Boston Medical and Surgical Journal*, Vol. CLXIX., page 707.) "Carcinoma of the Rectum."

James W. Heslop, M.B., M.R.C.S., Newcastle-on-Tyne,

England. (*The British Medical Journal*, February 28, 1914, page 476.) "Dissemination in Carcinoma of the Rectum."

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*Coccygodynia: A New Method of Treatment by Injections of Alcohol.* By Frank C. Yeomans, A.B., M.D., of New York City, N. Y.—The diagnosis is established by a thorough examination, both general and local. Local examination is made by inserting the index finger into the rectum and palpating the coccyx between it and the thumb outside. The soft parts intervening between the coccyx and anus are now compressed and the point of maximum tenderness is thus located, usually just beyond the tip of the coccyx. Proctoscopy rules out rectitis.

The prognosis hitherto has been better in the traumatic cases than in those of frank neuralgia or neuritis. The writer confidently predicts that the treatment proposed will render the latter equally amenable to treatment.

The writer proposes a treatment based on the suggestion of Schlosser in 1907, of injecting 70 to 80 per cent alcohol in sensory nerves, thereby causing their degeneration as practiced with marked success in trifacial neuralgia.

The technique is simple and can be carried out in the office under strict aseptic precautions. The patient with empty bowel is placed on a table in the Sims' position and the skin about the coccyx painted with tincture of iodine. A 2 c. c. Luer or similar syringe is filled with 80 per cent alcohol and armed with a two-inch needle. The right index finger is now inserted into the rectum and the point of maximum tenderness is determined by counter pressure with the thumb outside. Maintaining the finger in the rectum to guard against puncture and as a guide, the needle is introduced through the mid-line directly to the painful spot, and 10 to 20 minims of solution are injected slowly.

The needle is withdrawn and its puncture sealed with collodion. The pain from the injection lasts a few minutes and is followed by a dull ache, which may last a day or

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two. From three to five injections are usually required at intervals of about one week.

The writer reports seven cases, all women, treated from two months to four years ago. They required three, four, or five injections each at intervals of about one week. Relief was prompt and complete and all the patients have remained well.

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*The Technique of the Perineal Operation for Cancer of the Rectum.* By J. A. MacMillan, M.D., of Detroit, Mich.—In every case a preliminary colostomy must be considered imperative. The colostomy provides the only means of discovering whether a radical operation is justifiable or not, supplies physiologic rest for the affected part, and later provides for aseptic conditions in the surgical field.

After thorough divulsion a circular incision is made at the muco-cutaneous line and carried up to the lower surface of the Levator Ani. Most of the dissection can be done by the fingers. It is not necessary to destroy the external sphincter. This step of the operation exposes a circular area of the Levator Ani about an inch and one-half wide. Before proceeding further the hemorrhage should be controlled and the location of affected glands determined.

The next step of the operation includes the division of the Levator Ani and the removal of lymphatic glands.

The peritoneum may be entered anteriorly and separated laterally, which will leave the mesosigmoid as the only attachment of the bowel. This should be divided as far from its colonic attachment as possible in order to secure the retention of a good vascular supply for the proximal end of the bowel after the excision.

When the gut can be drawn down sufficiently to permit the excision of the affected portion and the attachment of the lower edge of the mucous membrane to the skin, excision is done and the sutures placed. Free drainage is necessary.

The colostomy is not closed until the patient has been up and about for several weeks.

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*Myasthenia Gastro-Intestinalis.* By V. Lee Fitzgerald, M.D., of Providence, R. I.—By the term “myasthenia gastro-intestinalis” is understood a weakness of the muscles of the abdomen, stomach, intestines, and their supporting ligaments, with a consequent downward displacement of any or all of the viscera.

Many patients suffering from myasthenia in its different forms are in danger of having suspensory or other operations performed upon them, whereas the intestinal stasis can be entirely removed by medical measures and the baneful effects of the underlying ptosis entirely removed.

The general aim in the treatment is the relief of the stasis, and the restoration of the prolapsed viscera to as near their normal position as possible.

The success in the treatment of these patients depends not only upon the relief of stasis, but also upon the patient's active and persistent co-operation.

For the past two years the writer has been treating cases of myasthenia as follows: The patient is given a thorough examination, including that of gastric contents, urine, and feces. In case of myasthenia of the stomach with dilatation and prolapse the patient is put to bed and fed through a duodenal tube six or seven times a day, depending upon the amount of food needed to nourish the patient. This gives the stomach a complete rest, and it comes up into normal, or nearly normal, position in from ten days to two weeks.

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*Further Observations on Pruritus Ani: Its Probable Etiological Factor; Results of Treatment.* (A fourth report. based on results of original research.) By Dwight H. Murray, M.D., Syracuse, N. Y.—In this report on the fourth year's work of original research on pruritus ani, the author

finds there is not much more to give to the profession beyond the confirmation of the work of previous years. He has yet no reason to doubt his claims for the infection theory of pruritus ani.

Twenty new cases have been examined during the past year. In all but two of these streptococcus fecalis has been demonstrated.

It has been found that occasionally the bacterial growth seems to be so lacking in strength that it is difficult to obtain an autogenous vaccine. It is not known why this is so unless it is owing to the very low grade inflammation produced by germs not so active as those found in many other infections.

During this year two cases were treated by other physicians who tried to follow his technique, but in neither case was improvement manifest, notwithstanding that streptococci were found present by the author's bacteriologist and although the same quality of vaccines were used. With the consent of their physician the author took up the treatment. Improvement was marked. The only point of difference in the technique that he could discover was that the others injected the vaccine deep into the muscle instead of directly into the skin or immediately beneath it.

During the past year the author has had additional proof that the itching does not extend appreciably above the white line of Hilton. He has also had continued confirmation of his previous statement that the moisture found upon the parts is not a discharge from the rectum.

This past year's work again shows that other rectal diseases are not present regularly with pruritus ani, and the belief is confirmed that they are coincidental instead of etiological.

No unfavorable sequelæ arose from the vaccine injections. There is now no hesitation in running the dose up to two billion or more dead bacteria. One injection resulted in formation of a jelly-like material in the tissue,

but this was absorbed. Some time ago a similar swelling was opened and found to be sterile, and no trouble has resulted.

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*A Report of Cases of Pruritus Ani Treated with Carnotite. By Samuel T. Earle, M.D., of Baltimore, Md.*—Carnotite, a radio-active mineral, was used in the treatment of eight cases of Pruritus Ani and was found to be a very satisfactory palliative remedy.

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*Treatment of Amebic Dysentery by Emetine Hydrochloride. By Alfred J. Zobel, M.D., San Francisco, Cal.*—The writer gives a brief culling from the literature on the emetine treatment of amebic dysentery, and also a few words relative to the drug itself.

He states that in emetine hydrochloride we have a reliable, non-toxic drug possessing a definite specific action, which may be administered hypodermically, and yet which will permit of a sufficient dose being given without causing any depression, nausea, vomiting, or local reaction.

He reports two interesting cases in which the disease was present in one individual for ten and in the other for fourteen years. Under the influence of emetine, within two or three days amebae, blood, mucous, froth, and foul odor disappeared from the dejections and their number greatly decreased; the racking tenesmus, bearing down feeling in the rectum, the colic, and the abdominal tension, discomfort, and gurgling absolutely ceased.

Proctoscopic examinations revealed the favorable influence of the drug upon the amebic ulcerations. No amebicidal irrigations were employed.

He further reports other cases seen by him in consultation which demonstrate most forcibly the necessity for a proctoscopic examination of the bowel and a microscopic examination of the feces in every instance where a diarrhoea lasts longer than a week; even though the patient has never

lived in nor visited a locality where the disease is known to exist.

He advises that emetine should be given for at least three or four months at intervals before the patient should be considered free from the possibility of a recurrence, even though he is clinically cured and the amebae cannot be longer found in the stools.

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*Amebic Dysentery and Its Treatment.* By Dr. Wm. M. Beach, of Pittsburgh, Pa.—The writer of this paper states that: (1) Amebic dysentery in the early stages may be cured with emetine. (2) In cases somewhat advanced emetine is efficacious and at least clinically curative. (3) The use of the duodenal tube, through which to introduce solutions of emetine to any portion of the intestinal tract, should receive trial and consideration. (4) For rapid cure and control, cecostomy or appendicostomy is the best measure in advanced and chronic cases. (5) Direct irrigation from above is superior to rectal injections, in that it is less painful and more thorough. (6) The appendix should be removed in most cases of amebic dysentery. (7) The so-called specific emetine can be easily applied in weak solutions.

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*The Pathologic Sigmoid Colon and Its Surgery.* By L. J. Hirschman, M.D., of Detroit, Mich.—Studies with the fluoroscope and the sigmoidoscope have shown that true prolapse and invagination of the sigmoid colon into the rectum is not an uncommon condition. The author advocates shortening the mesentery of the sigmoid by attaching the mesentery of the invaginated or prolapsed portion to the root of the mesentery of the descending colon.

In a number of cases of obstruction to normal defecation, this condition will be found in women who give a history of a disturbed puerperium. Radiographic studies of these patients who give a history of chronic obstipation accompanied by pain and marked tenderness in the left lower

abdominal quadrant and the region of the womb and broad ligaments, more often the left, show the presence of adhesions which angulate, displace, or bind down the sigmoid. The cure of this condition involves the relieving of the adhesions and the covering of raw areas with omental, epiploic or mesenteric grafts, or the excision or short-circuiting of the sigmoid. Another class of adhesions of the sigmoid seriously obstructing defecation is caused by adhesions to the abdominal wound following laparotomy.

Hypertrophy or redundancy of the sigmoid colon is another pathological condition which has not infrequently been met with. When the walls of the bowel contain a large proportion of unyielding fibrous tissue, short-circuiting is insufficient and excision is indicated.

In malignant growths of the sigmoid colon, excision with immediate anastomosis is the ideal indication.

When inoperable it is the author's practice to always make the colostomy in the median line. This is done for the following reasons: First, the median incision is the best for exploratory purposes. Second, one has the choice of any part of the colon in the making of the colostomy. Third, one gets just as good adhesion and union, with no more liability to hernia, as in the side. Fourth, the patient is better able to cleanse and dress the colostomy in the median line. Fifth, it takes the colostomy opening away from the neighborhood of the iliac crests, and allows of the better fitting of retention apparatus and colostomy shields. Sixth, control of a median colostomy is just as satisfactory as the lateral.

The author has found no difficulty in securing colostomy control by using a small rubber catheter in the mesenteric opening beneath the spur and encircling the upper limb of the colostomy with this catheter, drawing it just snug enough that the mucous surfaces oppose. The catheter is held in this position by a seraphine snap and is released by the patient when he wishes to defecate or expel flatus.

*Myxorrhoea Coli*—*Myxorrhoea Membranacea* and *M. Colica* (*Membranous Enteritis*—*Mucous Colic*). By Dr. S. G. Grant, of New York City, N. Y.—The essayist explained that myxorrhoea coli was a symptom complex characterized by constipation, abdominal pain, uneasiness or soreness and the periodic evacuation of jelly-like strips or casts of tenacious mucus on the one hand or colic on the other, and suggested that all mucous discharges be designated as *Myxorrhoea Coli*, with which understanding the former is called *Myxorrhoea Membranacea* and the latter *M. Colica*. The writer conceded that either type of myxorrhoea coli may be secondary to neurogenic disturbances, but strongly maintained that *M. membranacea* and *M. colica* are frequently produced by many other conditions and diseases, medical and surgical, several of which may be factors in the same case. He had often known these conditions to be caused by psychic, neurogenic, gastrogenic, and enterogenic disturbances, adenoidism, thyroid disease, impaired metabolism, abnormal menstruation, affections of the heart, liver and pancreas, inflammatory and ulcerative lesions (colitis), helminths, foreign bodies, prolonged or irritating colonoclysis, various lesions which induce chronic intestinal obstruction and led to coprostasis and autointoxication and other ailments which cause the hypersecretion or retention of mucus. The writer had observed patients who suffered at first from myxorrhoea membranacea and later *M. colica* where the mucus became inspissated, irritating and excited enterospasm.

The writer maintained that the *diagnosis* was easy in uncomplicated cases and that *Myxorrhoea Membranacea* could be recognized by its *symptom complex*, obstinate constipation, uneasiness and soreness or pain in the lower left abdominal quadrant and the periodic discharge of strips, casts, or jelly-like masses of mucus, and that where subsequent to these manifestations and in the absence of signs pointing to intestinal obstruction from other causes colic



suddenly supervenes, one is justified in making a diagnosis of myxorrhœa colica.

The essayist discountenanced a routine treatment in these cases and advised holding curative measures in abeyance until the acute symptoms subsided.

The removal or correction of kinks, twists, strictures, invaginations, adhesions, pericolic membranes and other lesions obstructing the bowel or causing stasis, effected a cure in many of the writer's cases and he rarely found the bowel sufficiently incapacitated to require resection, exclusion, or the establishment of an artificial anus.

In conclusion the writer stated that myxorrhœa membranacea and M. colica were common affections and more frequently responded to surgical treatment than the literature of the subject would indicate.

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*Peri-Rectal Gumma: Report of Two Cases.* By Alois B. Graham, M.D., of Indianapolis, Ind.—The subject peri-rectal gumma owes a great deal of its interest to its rarity. The author reports two cases which are rather unique. They were seen within twenty-four hours of each other, and both presented a typical peri-rectal gumma, in that no lesion of any kind could be detected in the rectum of either patient.

The author's conclusions are that peri-rectal gummata are rare. The two cases reported are unique and of interest in that both were typical examples of peri-rectal gummata. In both cases the gumma was seen in its early or vascular phase. In one case it appeared twenty-three years after the initial lesion; in the other case it appeared three years following the syphilitic infection. Both gummata were painless to palpation and fluctuation was detected in both. An error of diagnosis in one case was responsible for the incision and subsequent suppuration which followed. In the other case no incision was made and suppuration did not occur. No demonstrable rectal lesion could be discovered in either case. The induration in both cases

disappeared rapidly under antisyphilitic medication. No fistula resulted in either case.

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*Anal and Rectal Growths of Benign or Doubtful Character.* By Dr. T. Chittenden Hill, of Boston, Mass.—Hill states that in a series of 3,000 rectal cases previously reported there were 49 benign and 76 malignant growths of the rectum. The large majority of these tumors were characteristic and the differential diagnosis was easily made. A few malignant growths seen in an early stage, and some unusual benign types associated with ulceration, were of such a nature that the exact diagnosis was not easily determined.

The writer emphasized the fact that the operative measures to be employed differ radically in each of these conditions. An excision of the rectum is necessary for the malignant cases, a simple local excision is all that is required for the benign growths, where an incision and drainage will suffice for the abscesses and fistulæ. Therefore, a doubtful case cannot be treated as a breast case in which a complete amputation for a benign growth may be justified. In the case of the rectum there is not alone mutilation, but a high mortality and a serious impairment of function as well to be considered. Furthermore, the removal of a specimen of a suspected tumor is not now approved, and this complicates the problem still more.

The histories of several cases which illustrate the doubtful nature of some border line conditions occasionally found in the rectum are cited. They tend to show that aside from benign growths, some of which have many of the characteristics of malignancy, there are certain abscesses which develop in the loose cellular tissue of the retro-rectal and pelvi-rectal spaces which are even more suspicious. These indurated, irregular swellings bulging into the rectal ampullæ at first resemble very closely the sensation imparted to the finger in malignancy. A little later they become soft

and fluctuation is perceptible when all doubt as to their nature is removed. The sinus from an old fistula occupying these same spaces is apt to be much more perplexing than an abscess. As the slow process goes on the rectal wall is crowded into the lumen of the bowel and assumes an irregular, indurated outline which is very suggestive of cancer. Other conditions of similar doubtful character, such as gummatous growths and tubercular ulceration, are also discussed.

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*Retrorectal Infections.* By Collier F. Martin, M.D., of Philadelphia, Pa.—Martin reviews the histories of sixty-seven cases. In addition to the infection of the retrorectal space many of the cases also had involved the pelvirectal and ischiorectal spaces. Some of the more chronic cases were complicated with stricture of the rectum and multiple fistulae.

Eighty-five per cent of the infections occurred in males. External traumatism was not a factor in this series of cases. The author holds that most of these infections originate from internal traumatism, associated with some condition which lowers the resistance of the individual to pyogenic infection.

Pulmonary tuberculosis appears to be a most constant factor in thus lowering resistance. Twenty-one per cent died from tuberculosis at varying periods, either after examination or operation.

Forty-three per cent of the cases are noted as having pulmonary tuberculosis more or less advanced.

Of the fifty-five cases operated upon, thirty-three were cured. These present sixty per cent of the operative cases, or nearly fifty per cent of the total number examined.

In nearly half of the cases the original abscesses had opened posteriorly, either between the sphincters or at the anorectal line. Pain was not a prominent symptom.

The methods of incision applicable to the various complicating conditions are briefly outlined.

The author lays great stress upon the seriousness of these infections and upon the necessity of the prolonged watchful after-treatment.

While the prognosis as to both complete recovery of the local condition and the general health, as well as to the preservation of the sphincter control, should be guarded, careful after-treatment and prolonged observation will result in saving a large proportion of these really serious cases.

An abbreviated history of the findings in the entire sixty-seven cases is given.

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*Hemorrhoids; Their Treatment.* By Dr. J. Rawson Pennington, of Chicago, Ill.—Dr. Pennington states that clinically hemorrhoids should be classified:

1. According to their location.
2. According to their structure.

According to their structure they are divided into (a) those containing fluid blood, (b) those containing clotted blood, (c) those containing both fluid and clotted blood, and (d) those consisting of "skin tabs" or folds of skin.

Most hemorrhoidal cases can be operated on under some form of local anesthesia. He operates on 90 per cent of his cases by blocking the field of operation. The cocaine is usually employed in the strength of from one-fourth to one-half of one per cent. The quinine and urea in from one-fourth of one per cent to one per cent solution. Sometimes he combines the solutions, the cocaine being used for its immediate effect and the quinine and urea for prolonging anesthesia.

During the last twenty years he has given a fair trial to a number of methods advocated which promised a reasonably good result, including the ligature, the clamp and cautery, Whitehead, injection, suturing, and other methods

which unite tissue in mass, and has come very definitely to the conclusion that by far the best way of treating this condition is by the excision or enucleation method.

The operative procedure should have for its object the removal of the cause of the tumefaction. The treatment for each type of hemorrhoid should be practically the same. This should consist in removing an ellipse from the tumor-like formation and in the case of the thrombotic pile turning out the clot, and in that of the internal variety the varicosity and allowing the blood to escape, and in the fleshy pile of dissecting out the excess of tissue.

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*Hyperplastic Tuberculosis of the Colon.* By J. M. Frank-  
enburger, M.D., of Kansas City, Mo.—The writer declared that this form of tuberculosis of the intestine differs from other forms of intestinal tuberculosis, inasmuch as it is amenable to operative interference. It is generally a local and primary lesion and is characterized by the formation of tumor masses composed of fibrous and tuberculous granulation tissue in the walls of the bowel. Primarily there is no involvement of the mucous membrane, but on account of the narrowing of the gut the irritation caused by the passage of feces may produce ulceration.

Symptoms are slight, constipation and diarrhoea sometimes alternating. Later the symptoms are those of gradually increasing intestinal obstruction. Differential diagnosis is between sarcoma, carcinoma, syphilis, and chronic appendicitis with adhesions.

Treatment is purely surgical. If possible, the entire growth should be removed, but failing in this a short circuiting operation should be performed to relieve the obstruction.

Two cases are reported with successful operations.

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*Pseudo-Intestinal Stasis and Real Intestinal Stasis, Demonstrated Roentgenologically.* By Arthur F. Holding, M.D.,

*Please examine the date marked on the mailing wrapper of this number, and if your subscription has expired, kindly renew, and send the amount due, in currency, bank check, one or two cent postage stamps, or postoffice, or express money order to Deering J. Roberts, M.D., Editor and Proprietor, 136 Fourth Avenue, N., Nashville, Tenn.*



Glyco-Thymoline is of benefit for teething babies; a little rubbed on the gums, rapidly reduces the inflammation and conserves the little one's comfort.

Used for flushing the colon, it eliminates all septic matter, preventing autointoxication and reducing the temperature.

Glyco-Thymoline used internally corrects hyperacidity and prevents fermentation.

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Rational Procedure  
in  
Summer Diarrhea

# For Infants of any age

Mellin's Food

*4 level tablespoonfuls*

Water (boiled, then cooled)

*16 fluidounces*

Give one to three ounces every hour or two, according to the age of the baby, continuing until stools lessen in number and improve in character.

Milk, preferably skimmed, may then be substituted for water—one ounce each day—until regular proportions of milk and water, adapted to the age of the baby, are reached.

## ARE YOU IN PAIN?

**D**OCTORS probably ask this question more frequently than any other! To relieve pain, whether it be a slight nervous headache or the most excruciating neuralgia, brings the height of pleasure to both patient and physician. The ideal remedy must not only do its work safely, but it must also do it quickly. Prof. Schwarze (*Therapeutische Monatshefte*), believes the coal-tar analgesics are of use in all forms of dysmenorrhoea in which no anatomical changes can be demonstrated. Other practitioners find that it is necessary, in many cases, to also administer codeine in small doses. "Antikamnia & Codeine Tablets," would seem to meet just these indications. Codeine does not induce habit and is non-constipating.



When patients complain of weariness and despondency, or are in need of a refreshing sleep, prescribe one or two Antikamnia & Codeine Tablets. You and your patient will be most agreeably surprised at the relief given.

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ST. LOUIS, MO., U. S. A.

of New York City, N. Y.—Attention is called to many anomalies of visceral position and progress of the bismuth meal that have been interpreted as pathologic, and which are really physiologic or anatomic anomalies and completely compatible with health, laying especially stress upon the fact that the ileum enters the caecum normally at an angle, and unless associated with proximal distension, a diagnosis of Lane's kink is not justified.

He emphasized the point that delayed progress of the bismuth meal is not significant of obstruction unless it is more than six hours behind the normal schedule and associated with marked distension of the viscus proximal to the locus of obstruction. Proximal distension with obstruction to the bismuth column are the two cardinal diagnostic points of real intestinal stasis. Intestinal obstruction, due to tumors, is much easier to diagnose than intestinal stasis, because the defect in the bismuth shadow made by the tumor is more definite than that made by adhesions, veils, or membranes.

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*Local Treatment of Anal Fissure.* By Jas. A. Duncan, M.D., of Toledo, Ohio.—The writer describes a treatment for anal fissure which he has employed successfully for the past thirteen years. The fissure is brought into view by separating the folds, and the surface is lightly curetted, then thoroughly dried, and a drop of collodion applied. This takes only a moment or so. A recent ulceration requires but a single application. A sharp stinging pain lasting for only a few minutes is caused, and then the patient is left perfectly comfortable.

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*Some Unusual Phases of Sigmoidoscopy.* By Ralph W. Jackson, M.D., of Fall River, Mass. The diagnostic value of the sigmoidoscope has been the topic of much writing, and is increasingly appreciated by hospitals, but much less so by the profession and insufficiently in medical teaching.



Explicit statements of its considerable therapeutic uses are not found in German, American, or English literature. The instrument enhances the extent and accuracy of recto-sigmoidal therapeutics, and specifically it facilitates the use of certain other instruments, topical applications, the relief of high impaction, and the treatment of stricture and many other lesions. Serious trauma from the sigmoidoscope is more liable to happen than some authorities admit, as illustrated by three cases of intestinal perforation cited from the German. Two personal cases are detailed, where the patients were in serious condition from occlusion of the bowel, but were relieved and saved by sigmoidoscopy done with diagnostic intent only. Pelvic visceroptosis, hypermobility of the sigmoid, and the fixed and open rectal ampulla beneath predispose to invaginations and angulations which are fairly frequent in mild and chronic form, and are potentially dangerous as a source of acute obstruction. Sigmoidoscopy, properly conducted, empties the pelvis by gravity (due to the position assumed) by intelligent introduction of the instrument and by the air pressure admitted through it, and therefore tends to undo such intestinal malpositions. The occlusion in the two cases related was unexpectedly relieved, and doubtless in this way. Greater prevalence in the use of the sigmoidoscope would bring to light a field for deliberate therapeutic use of the instrument along these lines.

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*"Crude and Careless Diagnostic Methods, and Results of Same, in Some Recto-Colonic Conditions," by Jno. L. Jelks, M.D., of Memphis, Tenn.*—The author criticises the busy doctor and surgeon who too hastily yields to a conclusion and treats recto-colonic diseases without sufficient investigation to warrant or obtain a correct diagnosis.

Reference is made to cases operated on for appendicitis, which disease may be an extension of an infection and inflammation originating in the rectum or colon.

Cases are cited to show the frequency and at all times the liability of mistaking a condition for an infection or ulceration of the colon, specific in character, when a coloptosis or pericolic membranes, or both, were the true etiologic factors. Stress is laid on the importance of urinalysis, microscopic examinations and the X-Ray in recto-colonic cases.

A harder nodular calcareous degeneration of the outer zone of the mamma has been observed as a sequence of coloptosis and defective drainage. In another case, in which was found a cecum cradled in pericolic membranes, and a coloptosis, a duodenal ulcer was diagnosticated. In this case the urinalysis, the history, and general toxic appearance of the patient pointed to true etiology.

Case reports are given in which diarrhoea was the dominant symptom, though impactions, pericolic membranes, and ptosis were the true etiology.

The author calls attention to his prior reference to, and work of establishing the importance of conserving the ilio-cecal valve; also to the syphonage of a ptosed colon after short circuiting operations, which he accomplished by a second anastomosis between the blind colon and the sigmoid or rectum below the first anastomosis.

Importance is claimed for a microscopic examination of the intestinal contents of patients who suffer from attacks of appendicitis, and of the contents of the removed appendix; and the author insists that in the event that pathogenic amebae are found appendico-cecostomy should be performed instead of appendectomy.

The author refers to his observation of quite marked congestion of blood in the visceral vessels themselves in these cases of ptosis and defective intestinal drainage.

The author refers to the frequency with which he encounters cases of inoperable cancers of the rectum and intestines, the neglect of which is most often due to the

fear of examination of those suffering with symptoms in the regions referred to.

Reference is made to the operation of appendico-cecostomy as being practically free of danger to life. In his opinion this operation would save almost every life that is today caused by the ravages of amebic colitis.

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*Abscess Originating in a Pilo-Nidal Sinus.* By Louis J. Krouse, M.D., of Cincinnati, Ohio.—The writer states that a pilo-nidal sinus is a congenital defect due to a faulty development of the foetus. It is usually located in the median line over the coccyx or the sacrum. Inflammation developing in the sinus is followed by burrowing of pus into the neighboring tissue. Inflammation of this sinus must be differentiated from necrosis affecting the sacral or coccygeal bone; from abscess originating in the sebaceous gland of this region; and from true fistula-in-ano. The treatment consists in the complete obliteration of the walls of the sinus.

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*Abnormalities of the Colon, as Seen with the Roentgen Ray: Lantern Slide Demonstration.* By W. I. LeFevre, M.D., of Cleveland, Ohio.—The entire alimentary tract can now be successfully examined with the X-Ray, some parts more readily and successfully than others, according to the degree of satisfaction arranging themselves in the following order: Colon, Stomach, Oesophagus, Small Intestine. Two methods of examination are used. First, Roentgenoscopy, which is the examination with the fluoroscope. Second, Roentgenography, the making of X-Ray plates. The Colon is also accessible from either end—that is, it can be examined by following the bismuth meal through the stomach, or by giving an opaque enema of barium sulphate. In the former method the motor phenomena of the colon can be observed; in the latter the size, position, and contour can be seen.

The action of atropin, adrenalin, pilocarpin, and physostigmine, as affecting the action of the bowel, is briefly discussed.

The normal colon is described in detail, with radiographs showing different types. Many vary from the "ideal" type and still are normal for that individual.

Abnormalities of the colon may be produced by congenital defects, disease or injury to the bowel proper, from pressure, constriction or relaxation of other organs in close proximity. Coloptosis, owing to its frequency and importance, is first discussed with radiographs showing these conditions. Other abnormalities consist of stenosis, malignant growths, tuberculosis, kinks, twisting, hernias, diverticulæ, and megacolon or Hirschsprung's disease. All these conditions can be recognized by aid of the X-Ray.

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*Some Problems Before the American Proctologic Society.*  
*By J. A. MacMillan, of Detroit, Mich.*—The writer states that (1) during the past decade proctology has come to include diseases of the colon, and that the extension is beneficial inasmuch as it encourages and provides for a better diagnosis, and for a more thorough search after etiology. (2) That effort should be made by the American Proctologic Society to standardize some of the well-tried methods of treatment which have been proven effective and reliable. That on the other hand there are certain procedures in common use that are faulty and pernicious, and that it should be the aim of the Society to begin a campaign of education against these. (3) That in regard to rectal cancer he recommends that statistics from the members of the society be collected annually, and utilized to ascertain the prevalence and location of the disease, together with the extent of surgical interference or noninterference, kind of operation, and subsequent results.

The writer recommends that a cancer committee be appointed to take charge of this work.

## *Editorial.*

### ALIENISTS AND NEUROLOGISTS OF THE UNITED STATES.

At the Third Annual Meeting of Alienists and Neurologists of the United States, held under the auspices of the Chicago Medical Society, for the purpose of discussing Mental Diseases in their various phases, July 17th, 1914, some very important suggestions were made by the several committees to whom were assigned various subjects. While some of the recommendations are more or less radical, and in some instances too much so for practical results to be secured at the present time, they are all well worthy of careful investigation, with the earnest hope that at least some of them will receive the careful consideration they deserve.

#### I. MENTAL DEFICIENCY.

The committee on "The Causative Forces of Mental Deficiency" reported the following resolutions, which were unanimously adopted:

"We feel it unwise at this time to make any recommendations in regard to constructive legislation owing to the lack of proper evaluation of available data as to causes and sources of mental deficiency.

"We do, however, recommend and urge regulation of mental deficiencies and the furthering of investigations as to the causes and sources."

#### II. PREVENTION OF INSANITY.

The committee on the Prevention of Insanity, reported the following resolutions; which were unanimously adopted:

"Whereas, it is well recognized by alienists and neurologists the world over that certain major factors are the chief causes of physical conditions accompanied by mental derangement and deficiency, and

"Whereas, these major causes are largely, if not wholly, controlable and eradicable, and

"Whereas these major causes are alcoholism, habit producing drugs, venereal diseases, work in unsanitary and unhygienic surroundings, and hereditary influence including the immigration of the physical and mental unfit.

"Therefore, Be it Resolved, First: That we recommend to the proper State authorities, the absolute control of the sale of alcohol until such time as actual prohibition be enacted.

"Second: That the sale of all habit inducing drugs be strictly regulated in all States of the Union.

"Third: That municipal or State control of venereal diseases be established, with proper treatment for indigent patients, to the end that the spread of syphilis and gonorrhea be prevented.

"Fourth: That proper special hospitals for the care and treatment of alcoholism and drug addictions be established.

"Fifth: That Municipal, State and national inspection of labor conditions be regularly maintained and child labor abolished.

"Sixth: That no known defective dangerous to himself and to others, should be permitted to have unrestricted liberty.

"Seventh: That adequate teaching of the principals of heredity and sex life be initiated and fostered in the home with the view of its introduction into the curricula of schools—above the grammar grades, this instruction to be given to the sexes separately.

"Eighth: That the various States pass reasonable and universal marriage laws, that will be reciprocal, in preventing the marriage of the physical and mental unfit.

"Ninth: That a Psychopathic Laboratory be connected with the Criminal Courts. Common Schools, Railroads, Transportation Companies and Public Service Utilities, responsible for the actual safety of the general public should have their employees regularly examined as to their physical and mental fitness.

"Tenth: That, inasmuch as State, county and city public health institutions should have as their superintendents, men of highest qualifications, who may devote their best efforts to their tasks, we recommend that all such positions be subject to civil service examinations.

"Eleventh: That in addition to the above, we recommend a nationwide campaign of education conducted through the public press, university and medical schools, boards of health, state, county and city boards of education, women's clubs and other proper educational mediums, upon the true significance of the development—physical, mental and moral—of the individuals and the race, and finally, we recommend that a committee be appointed to promote the enactment of the above resolutions."

### III. ALCOHOLISM.

The committee on "Alcoholism as a Causative Factor of Insanity" reported the following resolutions, which were unanimously adopted:

"Whereas, In the opinion of the meeting of Alienists and Neurologists of the United States in convention assembled, it has been definitely established that alcohol, when taken into the system, acts as a definite poison to the brain and other tissues; and,

"Whereas, the effects of this poison are directly or indirectly responsible for a large proportion of the insane, epileptics, feeble-minded, and other forms of mental, moral and physical degeneracy; and

"Whereas, The laws of many states make alcohol freely available

for drinking purposes; and therefore cater to the physical, mental and moral degradation of the people; and

Whereas, Many Hospitals for the Insane and other public institutions are now compelled to admit and care for a multitude of inebriates; and

"Whereas, Many states have already established separate colonies for the treatment and re-education of such inebriates, with great benefit to the individuals and to the commonwealths.

"Therefore, Be it Resolved, That we, unqualifiedly, condemn the use of alcoholic beverages and recommend that the various state legislatures take steps to eliminate such use; and be it further

"Resolved, That we recommend the general establishment by all states and territories of special colonies or hospitals for the care of inebriates; and

"Resolved, That organized medicine should initiate and carry on a systematic persistent propaganda for the education of the public regarding the deleterious effects of alcohol; and

"Be it Further Resolved, That the medical profession should take the lead in securing adequate legislation to the ends herein specified."

#### IV. SYPHILIS.

The committee on "Syphilis as a Causative Factor of Insanity," reported the following resolutions, which were unanimously adopted:

"Whereas, Syphilis is responsible for a large percentage of all insanity and mental deficiency,

"Be It Resolved, That, First: Health Departments, (Municipal and State) should be equipped to make laboratory examinations for Venereal Diseases.

"Second: All Hospitals for the Insane should be equipped to make laboratory examinations for Venereal Diseases.

"Third: Hospitals and Dispensaries for the treatment of Venereal Diseases, should be provided.

"Fourth: Physicians should be compelled by law to report cases of Venereal Diseases, as is now done in other contagious diseases.

"Fifth: Applications for marriage should be required to furnish health certificates.

"Sixth: Lectures and Bulletins should be offered freely to the public regarding Venereal Diseases.

"Seventh: Newspapers should be requested to use their best influence to educate the people concerning Venereal Diseases.

"Eighth: Sex Hygiene should be taught in the Public Schools, above grammar grades, to the sexes separately."

The proceedings of the Third Annual Meeting of Alienists and Neurologists of the United States, held under the auspices of the

Chicago Medical Society, July 13-17, 1914, will be published in one volume by the Illinois State Medical Journal. It will be in double column, the type and size of page the same as the Journal, and will comprise from four to six hundred pages. This book will contain the papers read and their discussions, together with resolutions adopted. The subjects covered are Acquired Insanity, Epilepsy, Mental Defectives, Alcoholism, Abderhalden Test, Syphilis, etc.

The proceedings will be published and ready for distribution by October or November, 1914. As only a limited number is left unsubscribed for, those wishing the publication will please send their subscription at once, as there will not be a second edition. The price of book is \$2.00. Send subscription to the Editor of the Illinois State Medical Journal, Dr. Clyde D. Pence, 3338 Ogden Ave., Chicago, Ill.

#### PAINLESS CHILDBIRTH OR "TWILIGHT SLEEP."

The Kroenig and Gauss method of using Scopolamine and Morphine in the Frieburg Frauenklinik (Woman's Clinic) has been more or less actively exploited in both the medical and secular press during the past few years; however, both the fulsome and faint praise given the "Dammerschlaf" by enthusiasts, professional or lay, cannot well withstand the following statements from able and well recognized obstetrical authorities:—

The use of scopolamine-morphine as an anæsthetic in labor is no new thing: introduced by Von Steinbuchel in 1902, it has been tried in this country, as well as in Europe, by numerous obstetricians. My own observations, published in 1903, led me at the time to favor this therapeutic means of producing the "Twilight Sleep" and removing the consciousness of pain, or at least preventing all remembrance of it. I have long since abandoned this agent, however, for two reasons:

First, because it has apparently been the cause, occasionally, of fetal asphyxia.

Second, because the effect of the drug on the mother is often uncertain, and unless used with great care may cause unfavorable or dangerous results.

Moreover we have other and safer measures for the relief of pain in labor. So I have given up teaching the use of scopolamine in my lectures.

CHARLES M. GREEN, M. D.,

*Professor of Obstetrics and Gynecology in Harvard University.*

We have used the scopolamine treatment of childbirth in two separate series of cases at the Johns Hopkins Hospital. But in neither series were the results satisfactory, nor did they in any way approach the claims made for the treatment. We expect to do more with it



next year. In the meantime my own experience and conversation with Professor Kroenig do not make me feel that the method really constitutes a great advance over those which are in use by American physicians.

J. WHITRIDGE WILLIAMS,

*Professor of Obstetrics, Johns Hopkins Medical School.*

The mitigation of the pains of childbirth has always been the anxious concern of physicians all over the world, but more than ever since the discovery of chloroform and ether and their use for this purpose. In recent years several methods have been proposed that it was hoped might prove superior to the agents formerly used. Among these was the hypodermic injection of morphia and scopolamine, to produce semi-consciousness and indifference to pain, or what the Germans call "Twilight Sleep." As long ago as 1903 a monograph appeared in Vienna, advocating this treatment. American physicians, quite as progressive as any others in the world, tried this method in our largest maternities. Among other places it was employed in the Maternity of the University of Pennsylvania, in a series of cases over a period of two years. My experience with it coincides with that of my colleagues in this and other parts of the world. If enough morphia is given to abolish pain there is too much danger of hemorrhage in the mother and asphyxia in the child. The scopolamine does not diminish pain, but simply quiets restlessness.

As a member of the Gynecological Touring Club of America, in the summer of 1912, I had the privilege of observing this method at Freiburg in the clinic under the superintendence of Professors Kroenig and Gauss. It was interesting to hear that the morphia was employed in a single moderate dose, followed by small quantities of scopolamine. Evidently the disadvantages of the treatment—hemorrhage and asphyxia—had necessitated this modification. My conclusion from this observation and from my own experience was that the quantity of the two drugs being insufficient to abolish pain, the results secured in this clinic were partly psychological—that is, the patients were assured beforehand that there would be no suffering; were delivered in a quiet dark room; were given one moderate dose of morphia and became temporarily under its effect; and, being told afterward they had had no pain, probably left the institution impressed with that belief.

BARTON COOKE HIRST, M.D.,

*Professor of Obstetrics, Univ. of Pennsylvania.*

In November, 1913, I spent four weeks in Freiburg and had the opportunity to observe personally and study critically about ten cases of childbirth conducted in Professor Kroenig's own clinic. The impres-

sions received and opinions formed were decidedly unfavorable to the method of "Twilight Sleep."

In all the ten cases the birth pains were weakened and labor prolonged; in two of the women for almost two days. In three cases pituitrin had to be given to save the child from imminent asphyxia.

In five of the cases instruments had to be used. In my opinion two of these were directly rendered necessary by the paralyzing effects of the drugs scopolamine and morphine. Extensive lacerations resulted.

Several of the women became delirious and so unruly that ether had to be administered in addition to the scopolamine and morphine, the result being that the infants were born narcotized and asphyxiated to a degree. One had convulsions for several days.

All these occurrences confirmed my own experience with the drugs. I had used them when first proposed twelve years ago. At that time they were extensively employed in Europe and America, but were soon discontinued because they were found impractical and dangerous.

I visited the famous maternities of Berlin, Vienna, Munich and Heidelberg; in all of them upon inquiry I was told that this method had been tried and discarded.

JOSEPH B. DELEE, A.M., M.D., F.A.C.S.

*Professor of Obstetrics, Northwestern Univ. Medical School;  
Obstetrician to the Chicago Lying-In Hospital.*

Dr. Victor C. Vaughan, President of the A. M. A., is on record in a brief statement of like import.

Finally, we quote the following from our most excellent contemporary, *The Cincinnati Lancet-Clinic* of Aug. 22nd:

"It is rather remarkable that a magazine of the high order of the *Literary Digest* should have mistaken the "house organ" of a firm that manufactures morphia and scopolamin pellets for obstetrical anesthesia for a responsible medical journal that could write impartially upon the subject of the twilight sleep. Having made this blunder, the *Literary Digest* gives almost a column of quotation from this advertising agency which explains the refusal of the American profession to buy pills as due to obtuseness and hatred of everything new. . . .

"As for McClure's twilight sleep, there are some very suspicious circumstances surrounding it."

To all of which, being fully impressed with the great danger of the routine use of habit forming drugs, we most heartily say, *Amen!*

#### WHAT IS SAFE DRINKING WATER?

In order to say that a drinking water is hygienically safe one must be assured that it contains no pathogenic bacteria. The efficiency of water purification plants varies from day to day and from hour to

hour, and an opinion upon the absolute safety of a given water supply can not be rendered unless many bacteriologic analyses, made at short intervals during each 24 hours, show an absence of the *Bacillus coli*. While an absolute dictum is thus most difficult to secure, it is not difficult to determine, by daily bacteriologic analyses, that a water does or does not give a reasonable index of safety. Instead of attempting to find the germs of typhoid fever, Asiatic cholera, and dysentery in water, we accept the presence of the *Bacillus coli* as an index of pollution with sewage, for the reason that the chances of finding the *Bacillus coli* are very much better than the chances of finding the specific germs in the small quantity of water examined.

When we consider the grossly polluted water supplies used by many of our large cities until recent years, we must admit that even if the present effluents from filter plants do not show constant absence of *Bacillus coli*, they must be classed as reasonably safe, or relatively safe water.

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#### PLAGUE IN NEW ORLEANS.

Only 20 human cases at this writing, Aug. 25th, have developed, of which eight proved fatal. The *New Orleans Picayune* reports a case with a temperature of 108 degrees F., which received a subcutaneous injection of 200 c.c. of serum at a single dose, and is reported recovering.

Slowly but surely the clean-up work in New Orleans is fulfilling its purpose. The city gradually is becoming rat-proof. At the Federal sanitary headquarters, Dr. Rucker announced that the work now had resolved itself into mere routine and that with the continued co-operation of the residents New Orleans soon would take first place in the list of the country's sanitary cities. Out of the more than 50,000 rats that have been trapped and examined by the health authorities, forty-four have been found infected.

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**SOME VALUABLE MECHANICAL LAXATIVES:**—*Russian Oil* and *Agar* are among the latest offerings of Parke, Davis & Co. They are mechanical laxatives of a high order of merit and are certain to attract widespread attention from the medical profession.

*Russian Oil*, P. D. & Co., is a hydrocarbon oil distilled from Russian petroleum, generally known in Europe as paraffin oil. It is tasteless, colorless, odorless, and is guaranteed to be free from sulphur compounds, acids, alkalies and all harmful by-products. Particular stress is laid upon the high specific gravity of Russian Oil, P. D. & Co., and its resultant high viscosity and great lubricating power. The product is not a laxative in the sense of stimulating the bowel by local irrita-

tion, its function being rather that of an intestinal lubricant. It passes in toto through the alimentary tract, mingling with the food in the stomach and upper digestive tract, with the result that the feces become thoroughly lubricated and pass through the lower bowel more rapidly and are expelled from the colon promptly and easily. Not the least valuable feature of the product is its protective effect on the stomach and intestine, it being well known that abrasions or irritations of the mucous surfaces permit bacterial infection and general toxemia. If desired the oil may be taken with a pinch of salt or a dash of lemon juice, or it may be floated on a glass of water, wine, milk or other beverage. The dose recommended for adults is two or three tablespoonfuls, morning and night, for the first two or three days. Later the amount may be diminished. Parke, Davis & Co. supply Russian Oil, Aromatic, and Russian Oil, unflavored. Physicians, when prescribing, should indicate which product is wanted.

*Agar*, the other preparation referred to, is a Japanese gelatin derived from seaweeds. It is supplied commercially in dry, transparent pieces that are reduced to coarse flakes for medicinal use. It freely absorbs water and retains it. It has the additional property of resisting the action of the intestinal bacteria, and of the digestive enzymes as well. Its chief use in medicine is in the treatment of chronic constipation. Experiments have shown that when *Agar* is eaten as or with a food it passes practically unchanged into the intestine, where it permeates the feces, and, by keeping them uniformly moist, aids peristalsis. Hard and dry fecal masses are reduced to a softer consistency, normal evacuation resulting as a consequence. One or two heaping tablespoonfuls, according to individual requirements, may be taken once a day, preferably in the morning. It may be eaten with milk or cream, or mixed with any cereal breakfast food, with the addition of salt or sugar to make it palatable.

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**BOVININE—ITS USE IN ULCERATIVE PROCESSES:**—The recent advances in our knowledge regarding the properties and powers of normal blood and blood serum have opened up a broad and important field in widening their therapeutic use.

Important among these properties are the activation of the function of the phagocytic white blood cell which combats bacterial infection, the supplying of complement to augment the immunizing and anti-toxic power of the blood of the subjects of infection, and the power to diminish bleeding in those who have the bleeding tendency.

Such properties as these make Bovinine, which contains unheated beef blood serum, an exceptional preparation for use in the local treat-

ment of ulcers—especially of the sluggish type of leg ulcer—which are so resistant to all previously known forms of treatment. Combining, as it does, these important biological properties with the fact that it is a concentrated albuminous food, rich in non-irritating hemoglobin, Bovinine has come to be considered the ideal medicament in all cases of gastric and duodenal ulcer. Taken alone in these conditions, or added to cold peptonized milk or plain milk and lime water, it diminishes the bleeding, raises the blood hemoglobin and stimulates the local repair of the ulcer—activating the antibacterial power of the serous exudate at the base of the ulcer and stimulating the process of granulation.

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LIPPINCOTT'S FOR SEPTEMBER:—First, a rousing novel—not too long-drawn-out for a magazine, but just the right length—with every line meaty. Its title is "*Their Princess of Stars*," by Julius W. Muller.

Grant Trask Reeves, a new Lippincott writer, will tell the funniest base-ball yarn of the season, called "*The Breaking-In of Fatty*." In her story, "*Hidden Waters*," Katharine Metcalf Roof will fascinate you by the subtle handling of a domestic-triangle situation, "*The Second Will*," by H. P. Holt, relates the novel trick employed by a doctor to locate a lost will. A charming romance of the South by Nan Maury Lemmon, will be "*Wanderin' Jane*." A dramatic scene is pictured by Harriette Irmaguard Lockwood in her tale, "*Kidnapped in the Jungle*." A story of great human tenderness and noble self-sacrifice is "*The Sweetness of the Light*," by Arthur Leeds.

A visit to the Orkney Islands will be agreeably described by Eleanor Root in "*An Orcadian Week's Entertainment*." Of special interest will be the paper on "*Indian Traits*," by Charles Warren Currier. Col. Willard French's illuminating talk on "*The Production of Presidents*," cannot fail to impress you; and "*The Housework Cure*," by Kate Masterson, should be read by housekeepers everywhere.

Florence Earle Coates, L. L. Biddie, Richard Kirk and others will be represented through verse, while the various Departments will all reach high-water mark in September.

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IN RE-PIL. CASCARA COMP. ROBINS, Mild and Strong, (see ad. page 2.) they contain no Strychnia to poison, no Belladonna to dry the secretions or abnormally dilate the Pupils—*nothing* to injure your patients. They are suited to all conditions requiring more or less alimentary stimulation. Given per se or with any other remedial agent. As anti-dyspeptic, aperient, laxative or cathartic they are always pleasant and thorough, and do not leave the alimentary tract in a state of atony. No unpleasant symptoms develop from continued use.

**CITY VIEW SANITARIUM:** On a recent visit to this excellent institution for the treatment of Nervous and Mental Diseases, Alcoholism, and Drug Addictions, we found the management just completing a new department containing some fifty odd rooms and intended to take the place of the building now used for men. The old building will be used for administrative purposes and employees' quarters. In constructing this new department, every effort has been made to meet the more advanced ideas for the proper care and handling of mental and nervous cases. Not only has this been viewed from the standpoint of administrative management, but also from that of the comforts and conveniences of the patient as well. Certain changes and alterations, too, will be made in the women's department, which will be of benefit in the way of better classification and care of these cases. We feel justified in saying that with these improvements and changes the institution will be thoroughly modern and up-to-date in every particular, and, of private hospitals of its class, second to none in the South.

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**DANGER DUE TO SUBSTITUTION:**—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The more recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

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"WHATEVER BE THE NATURE OF RHEUMATISM AND GOUT, every practical physician realizes that they are amenable to treatment and that it is a matter of as much importance to open the doors by which the poison goes out as to close the doors by which it comes in. Hence, prompt and thorough elimination must be obtained through the liver, the kidneys, the bowels and the skin."

For accomplishing this purpose there is no remedy equal to *Tongaline*, which has been so successfully used for 30 years in the treatment of rheumatism, neuralgia, grippe, gout, nervous headache, malaria, sciatica, lumbago, tonsillitis, heavy colds and excess of uric acid.

RESPIRAZONE gives prompt relief in Hay Fever and Asthma, Acute or Chronic.

*Elixir Maltopepsine*, also made by The Tilden Co., of New Lebanon, N. Y., and St. Louis, Mo., is an ideal corrective of digestive disorders, digesting albumenoid, fibrinous and amylaceous food; it is also an excellent vehicle for other drugs.

The range of usefulness possessed by Elixir Maltopepsine is without limit, for not alone is it of the greatest value as a corrective in gastro-intestinal disorders, but is also unsurpassed as an adjuvant and vehicle. As a vehicle for such irritating drugs as the iodides and salicylates, it stands head and shoulders above all else, carrying them well and greatly modifying their untoward effects.

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THE VARIOUS MALADIES resulting from more or less tardy alimentary conditions, can be promptly and thoroughly relieved by the judicious use of *Pil. Cascara Comp.-Robins*. Made in two strengths, Mild 1 gr., Strong 4 grs., you can easily regulate the dose to suit each patient. For this purpose these pills are *par excellence* the remedy.

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GLYCO-HEROIN (*Smith*) is an absolutely stable and uniform preparation that has gained world-wide distinction through its dependable effects in Coughs, Colds, Bronchitis, Pertussis, Asthma, and other irritative conditions of the respiratory tract.

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ERGO-APIOL (*Smith*) has established a most satisfactory reputation in cases of Amenorrhea, Dysmenorrhea, Menorrhagia and Metrorrhagia.

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## Selections

THE KALLIKAK FAMILY AND THE MENDELIAN LAW:—Hon. Lathrop Brown, member of Congress from New York, in a recent address on the dangers to our nation from the admission of defectives, degenerates and criminals, presents a valuable resume of the importance of heredity. He says:

“The Mendelian law is named after its discoverer, an Austrian monk called Gregor Mendel. In his garden, in the year 1866, he made some experiments, crossing tall and dwarf peas, and found that the tall peas contained a ‘dominant’ character which the dwarf peas lacked. They were

'recessive' for the lack of that element which makes the tall peas tall. Mendel crossed the tall with the dwarf, and in the first generation all were tall peas. He then permitted these tall peas that had a single or simplex 'recessive' strain to fertilize themselves, and found in the second generation three tall peas to one dwarf pea, and so on through subsequent generations. This law, though lost sight of until 1900, has since then been found to apply to the color of the hair, albinism, brachydactylism, and to other human traits. As I said before, Dr. Rosanoff has not only made certain of the application of the Mendelian law to the inheritance of feeble-mindedness, but in so doing has for all time put the normal mind in the 'dominant' class and the feeble mind in the 'recessive' class. It is comforting to have the odds 3 to 1 in one's favor even after the first generation.

"Dr. Rosanoff hunted up the antecedents of some hundred of patients who were confined in the Kings Park (N. Y.) State Hospital for the Insane, made out a table of expectancy based on the Mendelian law, and arrived at these results:

"Of all the 64 offspring of 17 matings all of whose parents had the neuropathic constitution, according to the Mendelian law all these 64 children would be neuropathic. Dr. Rosanoff found but 54 who were neuropathic, although 8 are still too young to be determined.

"Of 169 children of 37 matings one of whose parents in each case had the neuropathic constitution, according to the Mendelian law  $8\frac{1}{2}$  would be neuropathic. Dr. Rosanoff found 84 neuropathic and 85 normal, and so on."

In regard to the descendants of Martin Kallikak, Mr. Brown says:

"During the year 1913 just passed there appeared a book called 'The Kallikak Family.' This is the pseudonym of a family on whose illegitimate side in the sixth generation is now a girl called Deborah in an institution for the feeble-minded at Vineland, N. J. In the course of the usual in-



vestigation into the heredity and environment of the patient, this startling fact was discovered: Just prior to the Revolutionary War one Martin Kallikak, a young man of very good family, had, by the feeble-minded daughter of an innkeeper, an illegitimate son. A few years later Martin Kallikak married a normal woman in his own station in life, and their descendants to the present sixth generation have been estimable citizens, proudly bearing one of the most honored names in the commonwealth of New Jersey. So, starting with Martin Kallikak, we have presented two branches of a great family, starting from the same head, the one branch normal, strong creditable, an asset to the State; the other weak, feeble-minded, discreditable, a continuing liability to the State; the one whose membership comprises business and professional men of the highest repute, the other branch of the same name whose 480 known direct descendants 143 have been feeble-minded and but 46 normal, with the rest unknown or undetermined. Can there be any doubt of the heritage of feeble-mindedness? A mere glance at the sinister Kallikak record of illegitimacy, harlotry, alcoholism, incest, and crime is sufficient.

"Now, if feeble-mindedness is hereditary, along what lines does it show itself? If there were any doubt of this hereditary quality, we should scarcely expect to find the known law of biology—the Mendelian law—to be its method of transmission, yet so it is—as in plants, so in people.

When we realize these facts we see not only the importance of protecting the great American Melting Pot by keeping out all alien feeble-minded, degenerates and criminals, but also the urgent necessity of unsexing the members of those classes we already have with us. Several states have followed the lead of Indiana in adopting laws for sterilizing the undesirable, but we should have national laws controlling such matters.

Mr. Brown is evidently wide awake to conditions along these lines and it would be wise for physicians to address

him, care of House of Representatives, Washington, D. C., and secure a copy of his illuminating speech and also urge upon him the necessity of national legislation unsexing idiots, degenerates and confirmed criminals. America does not want duplicates from any of these classes.—*Southern California Practitioner*.

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"SAVING THE BABIES" is the title of an article in the *American Practitioner*, May 1914, by Dr. Jno. Aulde, of Philadelphia, which concludes with the following report of an interesting case:

About ten years ago (July, 1904) while spending a few days in a small town in central Pennsylvania, I was asked one evening about dusk to go and see a sick child. The messenger said her little brother, two years old, had been sick for a week, and that he had been gradually getting worse; that the doctor had a consultation with another physician during the day, and they had decided that nothing further could be done for the child—and the attending physician had left town for the day. It seems that some friend had become interested in the child, and requested the parents to send for me, thinking that the other physician had failed to discover the secret of successful treatment. Accordingly, I saw the child, and found him in a decidedly critical condition. The mother said they had tried to give him different kinds of food, but if they gave him a single teaspoonful, it caused a bowel movement; in fact, the child was semi-comatose, the eyes were merely white streaks, while the jactitations from intestinal poisons were frequent and severe.

This was a typical case of ileocolitis, but under the usual treatment, such as intestinal antiseptics, colonic flushing, and fresh air, the outlook would have been decidedly unfavorable. But this was clearly a case of calcium depletion, arising from the acid excess incident to the original attack—that is, it began at the beginning. As soon as the child became sick, there was a diminished alkalinity of the blood, an

excess of acid in the system; hence, immediately, there was calcium depletion, the acid combining with the calcium to remove it from the system; that is, from the body fluids and tissues. The intestinal putrefaction and bacterial flora were of secondary importance, a statement which will prove heretical in the extreme.

Treatment consisted in the administration of calcium sulphate dihydrate in the form of tablet triturates, each containing  $\frac{1}{4}$  grain. The mother was instructed to give the child at once five tablets on the tongue, and this was to be repeated at intervals of an hour until the child went to sleep, and during the night if the child woke up. Further instructions were given that if the child was living in the morning, treatment should be resumed and instruction were given also in regard to the diet on the following day, but no nourishment was to be administered that night. As a result of this treatment, the messenger called upon me the following day about eleven o'clock and said the boy had a pretty good night; that he had had his medicine regularly and had taken the food ordered, and had been sitting up in bed with his playthings and having a good time.

Now, the gist of my contention is that we shall succeed in saving the babies by the administration of calcium (lime), to restore that which is lost from a diminished alkalinity of the blood, or acid excess, because it is a factor which is essential to promote function and restore normal conditions. While the brain substance contains but one part calcium to ten parts magnesium, and muscle contains one part calcium to three parts magnesium, the inorganic structure of bone consists of fifty per cent calcium. Such being the case, we can readily understand how calcium depletion causes nervous depression, muscular weakness, and skeletal defects, even a single day's illness is sufficient to demonstrate the correctness of the working hypothesis.

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HEAT AND INFANT MORTALITY:—That there is a direct and indirect relationship between a high temperature and

infant mortality is obvious. The question is how to apportion the causative factors. There is no need to dilate upon the fact that the hotter the summer the greater the mortality rate among infants, for the matter has already been exhaustively dealt with. Views as to ventilation have changed considerably in recent years, and Flugge, Hill, and others have shown that movement of the air is of great assistance in eliminating heat from the body by accelerating evaporation. Moreover, as infants, especially of the poorer classes, spend a great deal of their time indoors, it might be expected that infants living in houses or in parts of cities unfavorable to a free circulation of air would be injuriously affected by such conditions. This has been found to be the case, and consequently it would appear that heat bulks somewhat largely as a direct factor in the causation of summer infant mortality, and further that it is an indoor temperature rather than an outdoor temperature to which infants are exposed.

J. W. Schereschewsky, Surgeon U. S. Public Health Service, in Public Health Reports for December 5, 1913, discussed this relation of heat and infant mortality. He points out that the hypothesis held in this country thirty-five years ago and advanced anew by Meinert in 1884, that heat itself, by its various effects upon the infant organism, must be regarded as the chief factor in the summer mortality of infants, is once again attracting attention. Schereschewsky concludes as follows: (1) The action of heat is a direct cause in the summer mortality of infants has been greatly underestimated in the last twenty-five years. In the future much more weight should be given to its influence. (2) The lethal action of heat is a function not so much of the maximum and mean temperatures of the external air as of the indoor temperatures, which, in the late summer may continue to be high, in spite of remissions in temperature of the external air. (3) The action of stale and dirty milk in causing the death of infants has been given a significance which has overshadowed other factors of equal or possibly

greater importance. (4) There is evidence to show that a certain proportion of infant deaths are due to specific infections in the dissemination of which contact infection and flies doubtless play a part. (5) As a result, future activities for the prevention of infant mortality must concentrate themselves to a greater extent on the question of housing, especially on the conditions productive of high indoor temperatures, such as overcrowded, narrow streets, and the absence of thorough ventilation. (6) Poor housing conditions can be partially neutralized by the proper care of babies in summer. The general public should be educated as to the importance of high indoor temperature in causing the death of infants, and especially as to measures which prevent babies from suffering from the heat. (7) Breast feeding must still be regarded as a most, if not the most, important preventive of the summer death of infants.—Medical Record.

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SUMMER DIARRHEAS IN CHILDREN:—Observations on summer diarrhea in children at the Boston Floating Hospital in 1911 were made by A. I. Kendall and A. A. Day (*Bos. Med. and Surg. Jour.*, 1913, clxix, 741, 753). The bacteriological data reported are derived from examinations of the stools from 146 cases, together with clinical and post-mortem observations. The striking fact brought out is that in every case of infantile diarrhæa studied (with the exception of the few fermentative diarrhæas) there was a general conformity in bacterial type of the intestinal flora, which was uniformly proteolytic in character. This proteolytic flora forms a striking contrast to that of normal children of similar age, in which the putrefactive activities are minimal. Superimposed upon this proteolytic background various of the well-known intestinal pathogens may stand out conspicuously. In the past the isolation of such organisms has sufficed to establish the diagnosis; it now appears that such is not necessarily the case, inasmuch as one or more of them may be present without the produc-

tion of noteworthy symptoms. On the other hand, cases are met with in which these organisms cannot be found, yet show blood, pus and mucus in the stools, and severe toxemia. In these latter cases the flora has been found to be proteolytic in character.

The summer of 1912 was noteworthy from the bacteriological point of view for the large number of severe diarrhæas in young children, apparently of gas bacillus origin, 53 in a total 135. Since an excess of utilizable carbohydrate and a deficiency of the normal acidoduric flora are the principal factors which permit an overgrowth of gas bacilli, the theoretical treatment would be a restriction of the carbohydrate and the introduction of appropriate acid-producing bacteria into the intestinal tract. Theoretically the simple expedient of restricting carbohydrate should bring relief in all except the desperate cases. Ordinarily the lactic acid which exists preformed in fat-free buttermilk (the vehicle in which lactic acid bacilli are ordinarily introduced) is immediately available, being carried rapidly to the site of gas bacillus actively by the increased peristalsis which is a feature of these diarrhæas. The premises upon which this treatment is based appear to be sound. Feeding carbohydrate, particularly sugar, to this type of diarrheal cases results in a prompt rise of temperature, often several degrees, a prompt aggravation of the symptoms and an immediate increase in the number of stools.

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A DRESSING FOR BURNS:—Wm. M. Gregory, in the *Medical Council*, remarks that a reliable, non-toxic dressing for burns is needed. Those extensively in use, he says, are by no means free from danger when applied over a large area. Phenol, picric acid, iodoform and lead carbonate are, if freely used, liable to induce dangerous results. An instance of which I had knowledge was the case of a two-year-old child with a burned arm and in which a liberal dressing of lead carbonate resulted in lead poisoning, with

convulsions. In young patients with extensive areas which have been burned, absorption of toxic chemical dressings is an ever-present danger.

Calendula has, in my hands, proven a wonderfully effective dressing in burns; it relieves pain, promotes rapid healing and is an antiseptic which prevents pus formation, thus inducing aseptic healing.

The proper preparation to use is the non-alcoholic extract, or fluid extract, of calendula officinalis, or marigold. There is a tincture prepared for internal use, but for all antiseptic and surgical purposes this concentrated preparation is the necessary one. The succus calendula is not effective, but this thick, non-alcoholic extract, when properly made, is of great value; it is non-proprietary and is made for the regular trade channels for drugs and procurable by them.

When dressed with the old carron oil burns are often covered with pus in a day or two, but with calendula they remain absolutely aseptic and clean, healing rapidly. The same holds good with wounds which are bruised or lacerated, as I have verified in many cases. It is superior to ichthyol, especially in the relief of pain.

I add two ounces of reliable calendula, as described above, to fourteen ounces of saturated boric acid solution, and apply on gauze or absorbent cotton.

Many preparations of calendula are little more than colored water, and much of the crude drug is practically worthless. A good non-alcoholic extract is so concentrated as to be almost a syrup.

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NOTE ON A SIMPLE METHOD FOR DIMINISHING CHLOROFORM AND ETHER SICKNESS:—The *British Medical Journal* of December 6, 1913, contains an article by Renton on this topic. Having observed that cases of gastroenterostomy treated in the Fowler position had very little postanesthetic sickness, Renton has for the last six years raised the upper end of the patient's bed on blocks twelve inches high in all

cases after chloroform or ether anesthesia. This he continues for twenty-four or thirty-six hours.

This plan has been followed by a great diminution in the amount of sickness. By the old method in which patients were kept lying in bed with the head very low, the amount of sickness was very great in many cases. The staff nurses at the Western Infirmary and nurses in private confirm the statement that the improvement since the upper ends of beds were systematically elevated has been very great, and in consequence the suffering to patients and the labor to nurses are very much less.

The reason that this method is satisfactory is purely mechanical, as it is more difficult to be sick in an elevated position than with the head low. Certain patients are, of course, very sensitive to the influence of chloroform and ether, but even when on previous occasions patients report that they suffered for days with sickness, when in the elevated position the sickness very soon passed off.

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THE INFLUENCE OF ADRENALIN ON RESPIRATION:—In the *American Journal of Physiology* of June 1, 1914, Nice, Rock and Courtright in studying this subject reach these views:

1. The effect of adrenalin on respiration occurs synchronously with that on the circulatory system.

2. Doses of adrenalin which cause a fall of blood-pressure elicit an increase in the depth of respiration. This increase may or may not be preceded by a shallowness.

3. Within limits, doses of adrenalin which produce a rise in blood-pressure cause an increase in the depth of respiration. This increase, again, may or may not be preceded by a shallowness. The increase is proportional to the rise in blood-pressure and to the amount of adrenalin given.

4. Excessive doses, as Oliver and Schafer and others have shown, produce a marked shallowness in breathing. Within limits the shallowness is proportional to the effect on blood-pressure and to the amount of adrenalin given.



**OPIUM IS A DISEASE DEVELOPING DRUG:**—Only incidentally habit forming through the disease it causes. Opium fiend is a cruel misnomer. The term opium habit is a mistake. Morphine taking develops relaxed and painful states of the nervous, enterical and visceral systems when the opiate is long withdrawn, that are hard to endure, and can only be appeased by repetition of the drug or by other treatment. Dr. C. H. Bartlett in Vol. 35, No. 1, of this Journal, is right in saying the so-called habit is not a habit. The so-called habit consists in taking opium or its salts again and again to cover up and relieve the distress sequent to previously repeated doses and the harm it has done to the organism. It is cruel to call these unfortunate slaves of this pernicious condition drug fiends, because once enslaved, they can not do without being medically treated and cared for.—*Alienist and Neurologist.*

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**LOTION FOR USE IN URTICARIAS**—Bouchard employs the following:

R Cocaine hydrochloride,  
Chloral hydrate,  
Resorcin, of each, 2 Gm.  
Glycerin, 6 c.c.  
Alcohol, 40 c.c.  
Cherry-laurel water, 60 c.c.  
Distilled water, 9 c.c.—(*Med. Record*).

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**TREATMENT OF PRURITUS ANI:**—Crappier recommends two simple remedies, both of which in his experience are remarkably efficient. The first is ordinary Tr. Iodine; the second, and even better remedy, is the compound tincture of Benzoin. Within a minute or two after applying this remedy, the desire to scratch is over. It may be used two or three times daily and it never irritates.—*Amer. Jour. of Surgery.*

**PHILLIPS'**  
**MILK OF MAGNESIA**  
(  $MgH_2O_2$  )

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Useful in the Gastro-Intestinal Irritations of Infant, Child and Adult Life  
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**EDITOR AND PROPRIETOR**

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**NO. 10**

***Original Communications.***

**SPINAL ANAESTHESIA.**

**BY JOHN OVERTON, M.D., AND L. E. BURCH, M.D., OF NASHVILLE, TENN.**

We wish to bring this subject to your attention, not because it is a procedure not generally used, but because we believe it is one that has a distinct field of usefulness in properly selected cases. It might be interesting for us to give a brief survey of its history. In 1885, Corning, of New York, first used cocaine injections in proximity to the dura around the spinal cord in the lumbar region. Later he used

injections within the dura for the relief of irritable conditions of the cord. In 1898, Bier, of Berlin, first attempted its use for the purpose of producing anaesthesia for surgical reasons. Bier was careful in his work and warned against too widespread adoption of this method. It, however, was taken up promptly by a number of surgeons probably with too little appreciation of its danger and the limitations of its adaptability. Unfortunately, there were a number of fatalities and permanent unpleasant sequelæ. This, of course, discredited spinal anaesthesia and it was generally given up. Fortunately, there were a small number of men who felt that it had distinct advantages and that with proper care in selecting cases and improved skill and technique it would take its place as a safe method. There were a number of these men, prominent among whom were Bier, of Berlin; Tuffier, of France; Barker, of England; Morton, Babcock and Bainbridge of this country. Among the first cases cocaine was the drug used, but there were so many unpleasant symptoms to develop that it was rapidly displaced by a more safe drug, particularly stovain, tropacocain and novocain.

The method as generally used was lumbar anaesthesia, but Jonnesco, of Budapest, used stovain in combination with strychnine and injected at any point in the spinal canal. He has a large series of cases, and is very enthusiastic in his work. However, few, up to the present time, have been convinced of its safety or have the courage to follow him. A safe rule to follow in selecting cases for this method is to advise it only in those in which a general anaesthesia is positively contra-indicated and in which a local anaesthetic would not be sufficient. It is advised to use it in severe cardiac, pulmonary and renal disease; in the old, and in the weak exhausted cases, or in cases where we anticipate a very severe and long operation. It is especially adapted to prostatectomy in old men, pan-hysterectomy for carcinoma, in operations on the external genitals, rectum and lower ex-

tremities, in diabetics, and in cases of acute peritoneal sepsis and paralytic ileus. It is contraindicated in cases of myocardial disease, especially associated with obesity; in advanced arterio-sclerosis where we have reason to believe that the cerebral vessels are particularly affected; in cases of acute hemorrhage and shock with lowered blood pressure. The majority of observers feel that it should not be used in the very young; that is, under twelve or fifteen years. It should not be attempted where we have any anomaly of the spine, in acute lues or other cerebro-spinal disease. Of course, all agree that it should not be used where there is any inflammatory or septic process at a point near where we would have to make the puncture. It is also believed by most men that in cases of sepsis of unknown origin or a pyemic condition it is dangerous to use it, because of the possibility of inviting infection within the spinal canal following the unavoidable trauma and irritation produced by the puncture and injection of the foreign material. In nervous patients and in those who have an aversion for it we should never urge its use.

As Dr. Keen, of Philadelphia, says, the ideal anaesthetic is one that will abolish pain by the abolishment of consciousness, but without danger to life. To this no one will take exception. Spinal anaesthesia cannot entirely supplant general narcosis, but it is believed by Babcock as well as others, that in cases requiring operation below the diaphragm and cared for by those skilled in this work, that spinal anaesthesia is equally as safe as a prolonged general narcosis where we need complete relaxation; but not as safe as a light transient anaesthetic. Babcock also believes that there are fewer sequelæ following spinal anaesthesia than general anaesthesia. It has a number of disadvantages, among which are, that it is not applicable to all cases, that it fails in a small percentage of cases, that the dose cannot be diminished after once given, and that only those who have specially prepared themselves and developed a perfect

technique should undertake it. Any one without proper training or thorough appreciation of every danger, immediate or remote, should avoid its use. According to statistics, the percentage of deaths is higher than in the use of chloroform or ether. One man collected a series of twenty-two thousand cases with forty-six deaths. This, of course, includes many cases when this method was in its infancy, as well as many difficult cases whose termination could in no way be attributed to the anaesthesia used. Still we must realize the possibility of death from respiratory paralysis, as well as temporary and permanent disabilities from paralyzes of various groups of muscles. Symptoms of collapse may arise during anaesthesia, such as air hunger, faintness, disturbed vision, weak, rapid pulse, free perspiration, nausea and vomiting. It may be followed by symptoms of meningism, sleeplessness and various paresthesias, backache, acute decubitus and gangrene, transient nephritis, a chronic neurasthenic state and prolonged, stubborn headache. For the latter ergot is advised. Few cases have elevation of temperature, which is thought by some to be due to irritation of the heat center. There may be a complete relaxation of the sphincter or there may be retention of urine.

The treatment of collapse is to raise the head and shoulders, give stimulation by strychnine, caffeine, oxygen, saline transfusion and pressure on the abdomen. If symptoms of respiratory paralysis develop we should institute artificial respiration and keep it up until after the heart has stopped. Of course, the best treatment would be to closely observe the height to which anaesthesia reaches; and to raise the head and shoulders, should it go as high as the clavicle or involve the arms. To prevent the sequelæ we should use preparations that are fresh and prepared according to strict instructions. By these means we will avoid much inconvenience and anxiety to ourselves and best guard the safety and permanent health of our patients.

*Technique:* At present stovain, tropacocaine and novocaine are the drugs used. From evidence obtainable through reading it appears that tropacocaine is the safest. Stovain, however, has been used in a very large series of cases by Babcock, of this country, and Barker of England. These drugs may be used alone or in combination with suprarenal preparations. There is a disagreement, however, in reference to this point. Some think that it better localizes the effect of the anaesthetic as well as enhances it. Others believe that it is unsafe to use it, because of the unstable nature of the suprarenal preparations and the consequent danger of injury to the nerves with resultant paralysis or trophic disturbance with the decubitus.

All the drugs are susceptible to sterilization by heating. This should, however, not be too prolonged. Stovain has in itself positive antiseptic properties. They are all used in five per cent solutions, the dose being from five to seven one hundredth of a gram. Some use a solution lighter than the spinal fluid, some of the same specific gravity and some heavier. Some inject immediately following puncture, others prefer to allow the escape of five to ten c.c. of spinal fluid and then inject; others dilute the solution with the spinal fluid and return it all to the canal. It is claimed by Babcock that the anaesthetic affects the nerve roots and not the spinal cord. It takes place by a chemical affinity between the nerve substance and the anaesthetic drug. The majority put the patient in a sitting position with legs hanging over the table and back well fixed, and since the cord ends at a level with the second lumbar vertebra make the puncture between the second and third or the third and fourth, the latter being the safer, since the cord may possibly be lower than normal. The puncture may be made either directly in the median line or a little to the side, the needle in each case pointing slightly upward and toward the median line. It is well to use only a needle of the Quincke style and to withdraw the stylet before entering the sub-

arachnoid sack, and do not attach the syringe until the fluid flows out freely. These precautions are taken, first, with the idea of puncturing the sack directly in the median line, so as not to get into either group of nerve fibres; nor to penetrate too far forward where the motor roots lie and might therefore be more affected; and lastly, be sure the needle is well within the sack so that the solution would not be injected extradurally. The patient is allowed to remain sitting for three minutes, then is slowly put in the recumbent position with head and shoulders slightly elevated. It is generally considered unwise to elevate the pelvis too quickly. However, after fifteen minutes the Trendelenburg position may be used.

Barker uses a technique different from most of the others. He claims that by using a solution distinctly heavier than the spinal fluid we can definitely control the height of the anaesthesia by changing the elevation of the shoulders and pelvis with the patient lying in the lateral position. He takes care that this level is not disturbed on changing into the recumbent position. He uses stovain with the addition of a little glucose, which has a specific gravity of 1.02, the spinal fluid varying from 1.003 to 1.007. It is also possible by this procedure to anaesthetize only one limb. As a rule, a properly performed lumbar anaesthesia is sufficient in the class of cases indicated. If not complete, it may be repeated, unless the full dose has already been given, or we may proceed with the assistance of a small amount of ether, one to two drams will frequently be enough for a long operation. Others like to use the morphine-scopolamin combination. All instruments should be kept only for this purpose and sterilized either with steam or boiled in distilled water, as an addition of alkalis or strong antiseptics may neutralize the effect of the anaesthetic or produce irritation within the canal. We may prepare the solution fresh or use already standardized ampoules or tablets of definite amounts. The

technique we have used is as follows, and is practically that of Gellhorn, of St. Louis :

The patient is given the same general and local preparation as for any operation, but may be allowed to take food within a short time of going to the operating room. Is put on the table in sitting position with legs hanging over and puncture is made between the third and fourth lumbar vertebrae. As soon as the fluid flows freely, the syringe, already filled, is attached and as much spinal fluid drawn in as we had of solution ; we generally use three c.c. of a five per cent novocain solution, but I believe we may safely use it in as strong as a ten per cent solution. After remaining in the upright position for three minutes, the patient is gradually lowered to the recumbent posture with head and shoulders slightly elevated. In ten minutes preparation may be carried out and in fifteen the operation may be begun. The anaesthetic usually lasts from one to two hours. After return to room patient should be kept recumbent and watched closely for the first few hours. They frequently are in the humor to joke and may very soon be allowed food. The early convalescence very favorably contrasts with that of cases following a general narcosis.

*Case Reports:* Recently we have done eight cases by this method. First: A man seventy-eight years old, with stone in bladder. Second: Ureteral catheterization in cases of tubercular cystitis. Third: A woman with dermoid cyst of long standing and very much run down. Fourth: A case of dilatation, curettage, amputation of cervix, perineorrhaphy and hemorrhoids. Fifth: Dilatation, curettage, perineorrhaphy and ventro suspension. Sixth: Nephrectomy for tuberculosis of kidney. Seventh: Dilatation, curettage, appendectomy, oophorectomy and ventro suspension. Eighth: A man, seventy-five years of age, with enlarged prostate and three very large stones. The anaesthesia was good in all, but in the cases where the peritoneum was opened, the patients experienced some slight pain and nau-



sea. In two there was a tendency for the bowels to protrude, in one the relaxation was unusually good. With the exception of two cases, the subjects were exceedingly bad, but no alarming symptoms developed in any.

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### SOME GENERAL CONSIDERATIONS OF LEUCORRHEA.\*

BY T. G. POLLARD, M.D., OF NASHVILLE, TENN.

*Mr. President and Gentlemen:* The subject, leucorrhœa, which I have selected for this evening has been chosen because of its common occurrence and the importance it bears to both the general practitioner and surgeon. This condition though extremely common, has not, I think, been given the consideration it deserves. Curtis says that "the majority of physicians neither appreciate the gross aspects of the condition nor discover the locality from which the discharge arises; practically none of us possess an adequate knowledge of the bacteria involved, and most clinicians admit that their curative efforts yield poor results."

I am afraid that there has been too strong a tendency to consider leucorrhœa not as a symptom, but as a definite disease, and to think that once the diagnosis of leucorrhœa has been made, the only thing remaining for a cure is to try the stock remedies which can be found in any dictionary of treatment. As a result an occasional patient, in whom the discharge was brought about by some transitory condition gets well; numbers remain in a chronic condition of discomfort; others fall into a condition of positive ill-health; while a few die owing to neglected malignant disease.

It cannot be too definitely stated—although it is only an obvious truism—that leucorrhœa, like every form of pathological discharge, is due to a definite pathological condition; that this condition may be trifling or may be of the most

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serious importance; and that it is impossible or almost impossible, to determine whether the condition is trifling or serious unless we first determine its exact nature, and this by a local examination.

It is the common belief and teaching of a few practitioners and most of the laity that leucorrhea is common to every woman. For this reason women do not consult their respective physicians for the relief of even profuse discharges. Many women have lost their lives in middle life from uterine cancer because a diagnosis of leucorrhea was made and the leucorrhea was treated without an attempt at a diagnosis of its cause.

Arthur R. Curtis in a recent article in "*Surgery Gynecology and Obstetrics*" discussing the origin of the discharges says that it is essential to locate the focus of chronic infection with which the leucorrhea is associated. Most physicians believe that we have here to do with an infection of the uterus; hence the usual diagnosis, "Endometritis," and the frequent use of the curette to effect a cure. To determine whether uterine infection actually exists in leucorrheal cases, cultures were made from the uterus obtained at operation in several instances, as well as from scrapings from a dozen patients with leucorrhea. In only two was there a leucorrhea-like discharge obtained from the uterus. Fresh preparations, as well as cultures, failed to reveal the presence of bacteria. In over twenty patients the cervix was exposed, dilated to assure free drainage during the period of observation, but in none was there evidence of anything more than a mucous discharge from the uterus.

These results would indicate that purulent discharges are formed in the lower genital tract and rarely consists of bacteria-laden material from the uterine cavity.

The character of the leucorrheal discharge varies. It may be mucoid and ropy (cervical), or of a purulent nature. Or it may be creamy or watery—offensive or not—as a rule the thinner the discharge the greater the quantity.

It is not certain as to the part bacteria plays in the causation of the discharge. In 1892 Doderlein described his vaginal bacillus, the only organism he considers a normal inhabitant of the vaginal canal. This he found to be a non-motile, non-pathogenic, anaerobic, facultative aerobic bacillus. The vaginal secretions contain a preponderance of large gram-positive vaginal bacilli of Doderlein. The usual case, however, yields a great number of contaminating organisms. Mucoid secretion notably in the absence of local inflammation, presents a picture which tends to agree with the normal. The diplococcus of gonorrhea can usually be readily found in large numbers in discharges of gonorrheal origin, but a diplococcus of similar appearance is also apparently to be found not infrequently in the vaginal discharge of non-gonococcal origin; so in cases in which the diagnosis is of so serious importance something more than a rapid clinical examination should be made.

It is not always an easy task to locate the origin of a leucorrhea even after a most thorough examination. In the virgin we meet with difficult obstacles on account of the objection to a local examination. It is the idea of many people that because leucorrhea is sometimes the result of some general condition such as anemia, it is never due to a local cause, therefore there is no need for a local examination. If the discharge is slight in amount and only occurs at intervals, especially at or about the time of menstruation, if it is unaccompanied by menstrual disturbance or pain, if it is non-purulent, and if a general cause such as anemia is present, then one may be quite justified in, for the time, regarding the anemia as the cause of the leucorrhea and in treating that condition. If on the other hand the leucorrhea is persistent, and purulent in character, accompanied by menstrual disturbance and pain, then, whether there is an apparent general cause or not, the proper course to adopt is to make whatever examination necessary in order to determine the presence or absence of a local cause. It is not

my purpose to advocate promiscuous examinations in the virgin, but when the cause of a troublesome leucorrhea cannot be located by the rectum then I think an examination should be made. Under these circumstances an anaesthetic is best; it does away with the principle objection to the examination; that is, the feeling of modesty of the patient, and again a more satisfactory examination can be made. Another objection offered, which is perhaps sentimental, is that the hymen is ruptured, but it is not always necessary to rupture this membrane to gain the information desired. If though, however, vaginal treatment is to follow, its destruction is inevitable.

In making our examination we should ask ourselves what are the common causes of leucorrhea in the virgin? No doubt that cervical erosion and backward displacement in association with endometritis are among the most common causes. That such a statement will be readily and vigorously contradicted I am ready to believe, because many of the best gynecologists deny that such a condition as "endometritis" ever exists in the virgin; and others claim that backward displacement does not give rise to any symptoms. For clinical purposes it is enough to say that one frequently finds in virgins a hypertrophic condition of the endometrium associated with menstrual disturbances and discharge, which when removed the patient's symptoms disappear; and not infrequently one finds backward displacement with similar symptoms, which also disappear when the displacement is corrected and kept corrected.

Vaginitis may occasionally be responsible for a thin, serous, or purulent discharge; but in such cases there must be some cause for the vaginal irritation and infection.

Benign and malignant tumors of the uterus and the adnexa should always be thought of.

In the married woman there can hardly be any excuse for not working out the source of a leucorrheal discharge, because here there is no difficulty in making a thorough ex-

amination. As in the virgin cervical erosion is a common cause; this erosion may be and commonly is situated in or about an old laceration. Associated here we have again endometritis. The discharge may be of a simple mucous character, entirely composed of excessive secretions from the cervical glands; or it may be purulent, due to bacterial infection.

Occasionally the discharge may come from the uterine cavity without any apparent cervical origin. Profuse leucorrhea under such conditions must be very uncommon, except in cases of retention of portions of an ovum and of degenerating tumors such as myomata and carcinomata.

The infection of the vulvo-vaginal glands (Bartholini's), are commonly the source of discharge. Here it is probable that gonococcal infection plays the most important part, but other infections may also occur. The source of the discharge may be recognized in such cases; first, by finding the inflamed orifices of the gland ducts; and secondly, by causing pus to exude from them by pressure over the gland.

Vaginitis following a specific infection gives a profuse discharge. Not infrequently from the use of pessaries, tampons, or strong antiseptics we have set up a vaginitis which may go on to ulceration. Here, of course, the cause is usually known; and by discontinuing their use and by appropriate treatment the discharge is relieved.

New growths while not so frequent a cause as those above mentioned are in importance by far the greater. In this group I include all forms of new growths, both benign and malignant. Some of these are of extreme rarity, such as sarcoma, carcinoma, and endothelioma of the vagina or vulva. Sarcomata of the uterine body or cervix are more common, but still are rare. While carcinoma of the uterine body and cervix, and sloughing myomata are sufficiently common as to always be present in our minds.

*Treatment.*—I shall not attempt to detail any definite line of treatment, but shall only mention a few things I con-

sider worth while. If we have ascertained by vaginal examination that the discharge is due to a local condition of the cervix or vagina, relief may be obtained in many instances by vaginal applications. These may be given in the form of vaginal douches administered by a nurse or the patient; or direct applications by the physician in charge. The conditions which yield best to this treatment are the milder forms of vaginitis and slight cervical erosions and ectropion. I will not attempt to name the legion of drugs used by vaginal injections; they do good, first, by removing the discharge which would otherwise collect in the vagina; secondly, by their heat; and lastly, by virtue of whatever form of antiseptic they contain. In vaginitis they may effect a cure, but in glandular erosions of the cervix or in infections of the cervical glands, it is almost certain that their action is only palliative; but the direct application of strong antiseptics, astringents, or caustics may bring about a cure after a very lengthy course of treatment. In such cases not only the vaginal aspect of the cervix, but the whole cervical canal should be treated. It is doubtful whether this line of treatment is any more efficacious than is simple vaginal douching when we have a marked glandular hyperplasia as occurs in large erosions. In some cases, however, the local condition and symptoms improve markedly; this is brought about by producing an obliteration of the mouths of the cervical glands, with the result that these turn into small retention cysts and marked follicular hypertrophy of the cervix may result. If endometritis is present, curettement is indicated; for this dilatation and topical application may do as well, and if menorrhagia has been a marked symptom, or if it is a case of so-called hypertrophic endometritis it is well to follow the curettement with local applications. Erosions in many instances should be cut out, particularly so if located in an old laceration which should then be sutured. If there is an uncomplicated displacement of the uterus, and if there is reason to believe

that it will not be cured by the temporary use of the pessary, a radical operation should be advised, usually shortening of the round ligaments by a method of your own choice. Such a line of treatment is what I consider best in the interest of the patient, but since it cannot be carried out in many instances by the general practitioner, palliative measures should be encouraged. They, no doubt, frequently give relief, even though they may not give a cure.

In those cases where the leucorrhea is due to trouble in the tubes, malignant disease of the uterus, or sloughing tumors, the condition of affairs is different, and operative procedure is imperative, since it is the only means or method we have of removing the disease and curing the symptoms of the patient.

In conclusion, I only want to emphasize the necessity of making a careful examination of all patients complaining of leucorrhea, that we may know definitely the origin of the discharge and then be able to treat the *disease* and not the *symptom*.

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## Selected Articles

### THE TREATMENT OF THE COMPLICATIONS OF BRIGHT'S DISEASE—A CLINICAL LECTURE AT THE JEFFERSON MEDICAL COL- LEGE HOSPITAL.

BY H. A. HARE, M.D., PROFESSOR OF THERAPEUTICS AND  
DIAGNOSIS; PHYSICIAN TO THE JEFFERSON HOSPITAL.

Although the term "Bright's disease" has been loosely applied to almost all abnormal conditions of the kidney except those characterized by the formation of cysts or dilatation of its pelvis; nevertheless, if the term is to be used at all, it ought to be limited to those states which are commonly known as chronic parenchymatous nephritis and chronic interstitial nephritis. Indeed, if the term Bright's disease is strictly applied, it had better be limited to paren-

chymatous nephritis of the chronic type. Certainly the term "Bright's disease" ought not to be applied to acute nephritis, which is a very different condition, both pathologically and prognostically, from either of the chronic forms of nephritis which I have just named. Unless the process in acute nephritis is wide-spread and severe, or depends upon some profound intoxication, the prognosis is, comparatively speaking, favorable, for many cases of acute nephritis recover perfectly, whereas both of the forms of so-called chronic nephritis never recover, and although there may be periods in which the disease seems to be arrested, nevertheless the pathological process, in the course of months, makes a distinct and inevitable advance.

The use of the term "nephritis" in the two chronic forms of renal disease named is also unfortunate because it conveys, at least to the mind of the patient, the idea that a true inflammatory process is present. As a matter of fact, it is a degenerative rather than an inflammatory process, and the hyperemia, congestion, and swelling which are so characteristic of acute inflammatory processes are entirely absent. It is also important that a nice distinction shall be made between the process which is present in chronic parenchymatous nephritis and in chronic interstitial nephritis. In the first, as its name implies, there is a degenerative change which primarily and severely affects the secreting epithelium of the kidneys, both in the Malpighian tufts and in the uriniferous tubules. In the interstitial form, on the contrary, as its name implies, there is a marked overgrowth of the connective tissue. The degenerative changes in the secreting epithelium are far more gradual, and it is possible for the kidney to carry out its function sufficiently well to permit of a normal, or fairly normal, existence throughout a period of many years, whereas in chronic parenchymatous nephritis the duration of life is rather that of months than years when the lesions are well established.

These two conditions, therefore, differ materially from the



prognostic standpoint as well as from a pathological standpoint, and this difference, to a considerable extent, influences the treatment which may be instituted. It is, however, important to remember that there are no drugs, nor is there any method of dietetic treatment, capable of curing either one of these forms of degeneration in the kidney. The most that we can do is to prescribe methods of life, habit as to diet, and suitable drugs, in the hope that the process may be delayed or held in check. Possibly it may be fairly said that from a therapeutic standpoint we can do more to control symptoms and complications than we can to influence the morbid process itself.

In both forms of chronic nephritis there can be no doubt that climatic treatment is of very distinct service, unless the lesions are so far advanced that the duration of life is very limited. The avoidance of exposure to great cold, and particularly the avoidance of cold associated with dampness, is to be insisted upon, since these factors by chilling the surface of the body not only arrest the function of the skin, but also contract the peripheral capillaries so as to drive the blood to the internal viscera. They also induce a rise of blood-pressure through diminishing the area of the cutaneous blood vessels. So, too, excessive exercise in the search of health carried to the point of undue fatigue diminishes vital resistance and so aids in the pathological process; or worse still, the diminution in vital resistance lays the patient open to some infection which seizes the opportunity to attack him, with the result that he is subjected to an acute illness which is not only grave in itself, but is also a serious matter in that the infection produces toxic materials which the impaired kidneys are called upon to eliminate. Furthermore, these toxic materials, by irritating the kidneys, impair the function of the epithelial cells which are as yet not attacked by the primary disease.

In regard to diet I believe that the older theories concerning the avoidance of all meat and the ingestion of large

quantities of milk are, to a great extent, erroneous, although they are still largely followed. It is quite true that foods which are difficult of digestion and assimilation are not to be taken, since they not only throw a burden upon the digestive apparatus but result in the production of substances which the kidneys find it difficult to get rid of. It is also quite true that various forms of game, which are usually kept until they become somewhat tender and possess a peculiar taste or flavor as a result of early putrefactive changes, are distinctly harmful. So, too, the various soups which are often concentrated solutions of meat extractives are to be avoided, since some of these soups may almost be considered identical in their composition with urine itself. Possibly the most deleterious of the soups for the nephritic patients are the so-called green turtle and mock turtle soups, and this is particularly true in those cases of either form of nephritis in which the patient is also suffering from lithemia or gouty manifestations.

That ordinary red meat, taken in moderation, is harmful is, I believe, very doubtful. Indeed, I am inclined to think that in many instances the removal of red meat from the diet list interferes with the patient's nutrition, diminishes his vital resistance, and in no way exerts a beneficial effect. Furthermore, I am quite positive that red meats, if they are fresh, are no more harmful than so-called white meat. Although there is a wide-spread belief to the contrary, it is not based upon any sound scientific fact.

The institution of a rigid milk diet, which is so often resorted to, also seems to me to be an error. It is quite impossible for an individual who is not at rest in bed, to obtain from a rigid milk diet a sufficient amount of nourishment to keep up his nutritive balance. Indeed, he does not receive a sufficient number of heat units unless he takes somewhere in the neighborhood of five quarts a day—an amount which burdens his stomach with fluid and throws upon his kidneys the labor of excreting an enormous amount

of liquid. A rigid milk diet also makes many persons bilious, induces intestinal putrefaction, and upsets metabolism. Furthermore, the institution of a rigid milk diet deprives the patient of a class of foods which are most important for his proper nutrition, namely, the carbohydrates,, against which nothing can be brought, as can possibly be brought forward in the case of red meats, while carbo-hydrates give him energy, provide him with body heat, and maintain his general nutrition. Many forms of starchy foods contain enough vegetable albumen, in addition to starch, to provide a diet wholly competent for complete nutrition, and therefore better for the patient than the albuminous diet afforded by milk.

The use of skimmed milk is certainly unnecessary and unwise since the cream of ordinary milk, being a hydrocarbon, provides the patient with one of the articles of food which he always needs in health to maintain his nutritive balance. Of course, there may be instances in which an individual is unable to digest fats, and in such case skimmed milk may be necessary.

These remarks in regard to diet hold true with peculiar force in cases of parenchymatous nephritis, for while, on the one hand, the disease is more active and tends to a fatal termination comparatively early, on the other hand this fatal termination is inevitable, and I fail to see why a patient who has only a comparatively short time to live should be deprived of every form of food which is attractive, and be harassed by anxious members of his family who are continually warning him against the ingestion of some article which is not upon his diet list. The mental effect produced by a rigid diet list is often far more deleterious in its influence upon the general health than can be counterbalanced by the avoidance of articles of food of the simple variety which every adult knows to be easy of digestion and assimilation.

I should have pointed out earlier in the clinic the addi-

tional fact that while for descriptive purposes we can divide chronic nephritis into the parenchymatous and interstitial form, it is not to be forgotten that in actual practice there is always some parenchymatous degeneration in interstitial nephritis and always some interstitial change in parenchymatous nephritis, and when these two conditions are nearly equal we have that by no means rare condition known as chronic diffuse nephritis, in which the conditions and the symptoms partake of both forms of the disease.

It being admitted that we can do little to arrest the degenerative changes in the kidneys, it is not admitted that we cannot benefit or allay associated changes or symptoms. The most important of these are connected with the cardiovascular system, and the most frequent of them is that which is characterized by a gradually increasing rise in arterial pressure, which rise is due in part to spasm of the muscular walls of the arterioles and in part to an arterio-capillary fibrosis. In some instances, particularly early in the disease, the rise of pressure seems to be due almost entirely to spasm, and it is in this type that we can do most by remedial measures. These remedial measures consist, first in order of importance, in the use of electric cabinet baths, or, if these are not to be obtained, in hot-air baths in which the patient's head is not subjected to the heat, but is kept cool by cold compresses. These baths certainly lower blood-pressure markedly when it is due to spasm. Part of this lowering is due to the wide dilatation of the cutaneous blood-vessels, part is due to the relaxing effect of heat, and in all probability these baths also influence metabolism so that toxic materials are not made, or if formed are more readily eliminated than under ordinary circumstances. Whether these baths actually aid in the elimination of poisonous materials through the skin is a matter of doubt, at least so far as the quantity being large enough to be beneficial is concerned. In some of these cases, too, the daily exposure of the patient to the high-frequency current not

only results in a considerable fall in blood-pressure during the treatment, but in the course of weeks gradually lowers it so that a gain of fifteen or twenty points of pressure may be obtained. This lowering of pressure is of advantage in that it relieves the heart of much labor and probably tends to arrest degenerative changes in the vessels themselves.

Concerning the use of drugs which lower blood-pressure there are, of course, only two classes the various nitrites and the iodides. Neither of these classes are of much value if fibrosis is more largely responsible for high pressure than is spasm. Where fibrosis is the dominant factor the nitrites are practically useless, and the iodides are of value not because they are vascular relaxants, but because they control nutritional changes in some way not understood, and so more or less indirectly remove the exciting cause of the blood-pressure or influence the pathological lesion in the vascular walls. Although at one time the nitrites were very largely employed in the conditions we are considering, I think it is fair to state that they are not regarded at the present time so favorably: first, because increasing experience has shown that they do not materially delay the advance of the disease, and, secondly, because they are so fleeting in their action, comparatively speaking, that they cannot be taken sufficiently frequently to permanently maintain a lowered blood-pressure without causing the patient much annoyance because of the frequency of the dose or because of the headache which their constant use induces. Probably it is fair to state that the best use of the nitrites, under these circumstances, is in those instances in which the heart muscle is not only enfeebled by reason of the renal disease which results in some degeneration of its fibres, but is also fatigued by having to force the blood continually through blood paths which are unduly narrow and unyielding.

If the patient has attacks of cardiac distress or pain, either while ingesting food or on exercise, the nitrites

should be given to relieve the heart or burden at such time and to rest it between the periods when it is called upon to do additional labor. One of the best ways of having the patient use the nitrites is to give him some hypodermic tablets of 1-100 grain of nitroglycerin, with instructions to dissolve a tablet in his mouth if any evidence of cardiac distress develops at any time. The drug is absorbed with great rapidity from the mouth, and it is not necessary to attempt to swallow the tablet. For continuous use throughout the day sodium nitrite may be of use in one or two-grain doses, and it will be found to agree with the stomach much better if to each capsule, or konseal, from three to five grains of bicarbonate of soda are added.

The iodides of choice are, I think, first, a good syrup of hydriodic acid in doses varying from a dessertspoonful to a tablespoonful four or five times a day, well diluted, and taken an hour after meals. In other cases, ten or fifteen grains of iodide of strontium or sodium may be given with advantage after the same lapse of time after meals, but at no time should any of the iodides be pushed to the point at which they disorder the stomach, or to the point where in the elimination of the iodine the kidneys are irritated.

If the blood-pressure is high and cardiac symptoms are present, and the physician finds on auscultating the heart that the first sound is weak and the aortic second sound accentuated, it is essential that he shall order the patient to rest as much as possible in bed, that the nitrites or iodides should be used as already directed, and small doses of strophanthus or digitalis and nux vomica given. In some of these instances arsenic seems useful if given in minute tonic, non-irritating doses, and the old-fashioned Donovan's solution may sometimes be employed with advantage if the renal condition is very chronic and there are no red blood cells in the urine.

In dealing with the matter of an abnormally high blood-pressure it is of vital importance that the physician should

not attempt to lower the pressure unless the heart is manifestly greatly fatigued, because, in many instances, the blood-pressure, which is abnormally high for a man in health, is distinctly compensatory in its nature, is essential to comfort and to the functioning of various organs, since a lower pressure will not permit the tissues of the body to be adequately supplied with blood. I have already referred to the value of the electric cabinet baths in these cases. If the first sound of the heart is very weak, either their use should be postponed until by rest and proper treatment the quality of this sound improves, or the electric cabinet should not be used at all.

Many of these patients complain at times of vertigo and dizziness. These symptoms nearly always demand rest in bed. They may be due to accumulating poisons in the body, to failure of the heart when some additional strain is thrown upon it by difficult digestion or exercise, or they may be due to some disorder of the cerebral circulation or in the semi-circular canals which we do not understand. Free purgation with some one of the salines, rest in bed, the use of moderate doses of digitalis and strychnine, will often put aside these symptoms. Another condition sometimes met with in chronic nephritis is subacute or chronic bronchitis, a condition often treated as a primary one by means of expectorants because the physician does not carefully examine the urine. If such an examination were made, it would immediately become evident that a nephritis was the cause of the bronchitis. Here, again, rest in bed and the use of cardiac tonics is usually essential to produce relief, and if the renal condition has been sharply accentuated by exposure, dry cups placed over the bases of the lungs and over the kidneys may be very advantageous.

Concerning the value of bloodletting, it seems to me that this measure should be chiefly confined to those cases of uremia, or threatened uremia, in which there is dilatation of the right side of the heart, marked congestion of the ven-

ous system, and cyanosis. To bleed the nephritic in the absence of such evidence of mechanical obstruction in the venous system, in my experience, is rarely advantageous and deprives him of blood, thereby adding to the anemia which is so often an important factor in the parenchymatous form of the disease.

Lastly, I fear I may be considered an iconoclast if I condemn the general use of Basham's mixture in these cases. If the kidney epithelium is so diseased that it fails to secrete urine, it is hard to believe that so gentle a diuretic as Basham's mixture can stimulate it to increased endeavor. If a mere diuretic is needed, the ordinary ammonium acetatis would be equally efficient, and the patient's digestion will not be destroyed by the ingestion of large amounts of iron which are far in excess of the needs of the body at any time and which are prone to produce constipation, a condition most undesirable, and which also is liable to induce fulness of the head or headache in many patients.

Alcoholic beverages, in general terms, are to be prohibited, but where a patient has been accustomed to the use of whisky it is usually best to allow him to continue it or even to order it for him, if it agrees with him, since by burning it up in his body he gains energy, and unless he takes it in excess, so that the alcohol has to be eliminated by the kidneys, it is not harmful. If urinary secretion is scanty, a dry gin to which has been added a little lime juice and sparkling water may be used as a refreshing and stimulating drink and as a diuretic.—*Therapeutic Gazette*.

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**BRAIN ABSCESS:**—Dr. Henry O. Reick (*Jour. Tenn. S. M. A.*, July, 1914) says that the best instrument for exploring the brain substance for an abscess is a narrow-bladed knife, or, a 2-mm. exploring needle with several fenestra. If pus be found, a grooved director may be inserted along the knife blade and maintained in position until the opening can be enlarged sufficiently to drain the abscess cavity and



permit the introduction of dressings. There has been considerable discussion as to the best form of drain for a brain abscess. In Reick's opinion, the choice lies between fenestrated soft rubber tubing and the so-called "cigarette drain," composed of a sterile gauze wick encased in a single layer of rubber tissue. Irrigation of the abscess cavity is not generally advisable. When it is required, warm normal salt solution or a bichloride solution in a strength of 1:10,000 may be employed.

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## Reviews and Book Notices

**GUIDING PRINCIPLES IN SURGICAL PRACTICE**, by Frederick-Emil Neef, B.S., M.L., M.D. Adjunct Prof. of Gynecology, Fordham University School of Med., New York City. Sextodecimo; 180 pages. Surgery Publishing Co., New York. Price, Cloth, \$1.50.

The author answers herein some of the questions which present themselves to the general practitioner and surgeon.

The viewpoint is based on clinical studies in the operating room and at the bedside of the patient. The book covers the practical points in the preparation of the patient for an operation, the arrangement of the operating room, the important relations between the surgeon and his anesthetist, the assistant, the family physician, the nurse during the course of the operation, also the after care of the case.

Other chapters in the book cover such important considerations as Sterile Washes and Wound Dressings. Sterilization of Utensils and instruments. The Surgeon's Hands. Wound Healing and Scar Formation, Asepsis, Suture Material, Anaesthesia, Incision, the Course of the Operation, Care of the Patient after Operation, The Treatment of Unclean Wounds, in fact, within this book of 180 pages will be found those very necessary essentials that guide in the successful handling of operative work.

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**DISEASES OF BONES AND JOINTS**, by Leonard W. Ely, M.D., Associate Professor of Surgery, Leland Stanford Junior Univ., San Fran-

cisco, Cal. Sextodecimo, 220 pages, 94 illustrations. Surgery Publishing Co., New York. Price, Cloth, \$2.00.

The usual interest now manifested by the profession in Acute and Chronic Arthritis, as well as other forms of Bone and Joint Diseases makes this book particularly timely.

Prof. Ely is particularly well equipped from experience to present an authoritative work, having specialized in this particular branch of surgery for years.

In a brief terse way, it presents the Anatomy, Physiology and Pathology of Bones and Joints, Acute and Chronic Arthritis of various types, Ankylosis, Diseases of the Shafts, Acute Osteomyelitis, Chronic Inflammations in the Bone Shafts, New Growths in Bone, etc.

The profuse Photo-Micrographs with other illustrations aid materially in elucidating the text.

It is a book which will be much appreciated by the general practitioner and can be read with the assurance that it presents valuable instructions from an authoritative source upon a subject where much light is needed.

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THE PHILOSOPHY OF RADIO-ACTIVITY, by Eugene Coleman Savidge, M.D. Member of New York Academy of Medicine, New York Obstetrical Society, American Medical Association, New York State Medical Society, Society Alumni Roosevelt Hospital, and Sloane Hospital for Women; former Asst. Gynecologist, Roosevelt Hospital (O. P. D.); former Attending Gynecologist, St. Mark's Hospital; Author of "The Problem of Cancer, or The Philosophy of Malignancy"; "Unclassified Diseases, or The Prolongation of Life"; etc., etc. Octavo, cloth, \$1.50 net. Published by William R. Jenkins Co., Sixth Avenue at 48th Street, New York.

There is no other volume published wherein may be grasped so quickly and easily the laws and significance of the vital subject of radio-activity, as in "The Philosophy of Radio-Activity."

Though the subject is associated in the public mind principally with cancer,—and, indeed, its very close relation has opened up a true philosophy of malignancy—this is a small fraction of the whole; for all the sciences have required re-modelling since the discovery of radium.

## *Editorial.*

### "GRIM VISAGED WAR."

The terrible, most horrible and devastating clouds of war, strife, bloodshed and destruction that now overspreads so great a part of the European continent, even extending beyond the seas in the "Far East," is a source of great regret, sorrow, trouble and anxiety to all rational thinking people, having its sad and trying effects, we may well say, upon the whole world.

The lowering clouds that threatened our own land along the Rio Grand and Gulf section, although there are yet some mutterings of revolution in our sister republic, had almost passed away, when with a suddenness that was startling, swords were again snatched from the scabbard and the boom of cannon, the hurtling shriek of shell, accompanied by the spiteful hiss of the deadly bullet were echoing throughout the most historic regions of Europe and among some of the most enlightened and civilized nations.

It is a war in which the masses of the people—those who will suffer the most, had no part or parcel in the making, although to them will come the brunt and stress of the struggle. It is not a war of deliverance from oppression, it is not a blow for freedom, a strike for liberty; although one or more republics may replace a monarchy. It is not a religious war, for it is limited to and waged in behalf of no special denomination or sect, and Protestants, Roman Catholics, members of the Greek church, as well as others are both allied and opposed. Nor is it a war of races, for Saxon, Serb, Slav and Teuton are each striving and struggling to the bitter end on both sides of the battle line. And while it is not a civil war, yet of the crowned heads engaged therein, at least three are allied by ties of blood and kindred, to say nothing of many of the lesser "pawns" who will render up their lives a sacrifice to the terrible mistake that has been made by a leader or leaders who should have known better, by reason of their exalted position.

With the secrecy surrounding chancelleries, the hidden wiles of diplomatists and the many conflicting statements permeating each and every issue of the secular press, it is almost useless and well nigh impossible to correctly analyze the cause of this dreadful world-wide disaster; and it is the epitome of illogical juvenility for Hohenzollern, Hapsburg, Briton, Frank or Russian to try to shift the responsibility, the one upon the other. Some one is responsible, and, oh, the pity is! the brunt of suffering, pain, distress, anguish, sorrow and even death itself must be the sad lot of so many, many thousands who had no hand or voice therein.

In our own personal opinion, we heartily concur in the views of our able, terse and virile contemporary, Dr. Wm. J. Robinson, who on his somewhat hurried return from an annual trip "beyant the big pond," in an editorial in the September issue of *The Critic and Guide*, has the following in regard to what he terms "*The Horrible Thing*."

"I am back home.

"I was in the midst, or rather at the fringe, of the human slaughterhouse, and what I have seen will last me to the end of my days. I have always hated war with every fibre of my soul, but now this hatred has become too intense for expression, and my blood boils at the thought of those wretches and imbeciles who see something noble, something elevating, even something necessary in war. Forever accursed be they who by thought, word or action, directly or indirectly, foster this horror of horrors.

"And please do not prate to me about your civilization, progress and Christianity. When an ambitious megalomaniac, a senile reprobate and a pogrom-inciting brute can cause millions of friendly, inoffensive people to fly at each other's throats, to cut, slash, burn, bayonet, mutilate, rape, gouge, dynamite and drown each other and behave worse than blood-crazed savage beasts—civilization, progress and Christianity indeed!

"I shall have more to say about the war in future issues—for during my dark and enforced hours in Europe I wrote enough about it—but I consider it important to register my opinion that the primary responsibility for this mad and maddening slaughter rests exclusively with Wilhelm II of Germany, egged on by the Crown Prince and the villainous military party. Only the blindest partisan can deny that."

Although we cannot endorse Dr. Robinson's demand or desire in a subsequent paragraph for the heads of William of Germany and his son, the Crown Prince, as well as that of poor, pitiable Franz-Josef of Austria, and Nicolas of Russia, failing to state whether on a charger or not, we having seen far too much of grim death in both peace and war, and have for many years held the opinion, that the very worst use to which any man can be put is to kill him, either with or without the sanction of law. We would always greatly prefer that every human being be given all the time possible that the many vicissitudes of life will permit to repent of his sins, either of omission or commission, inherent or acquired. However, as the *Kaiser* has essayed the role of a Bonaparte, we would very much like to see dealt out to him the same measures that wound up the eventful life of the ambitious, restless and almost resistless Corsican. That he must eventually succumb to the massive forces that he has arrayed against himself is only a question of time—a foregone conclusion, and soon may it be;

but how soon no man can now tell; yet when it does occur, in our opinion, it would be better by far to send him to some lonely isle in mid-ocean, there to be kept until his life came to an end by natural factors. Nor would we have him supplied with costly garb and dainty food; but would select a reasonably fertile island and give him a horse and a cow, a hog and a hoe, a plow and an axe, and such other tools and utensils as would enable him to make a living by the sweat of his brow and the toil of his hands, as many a better man has done, and let him have all the time possible for repentance of his misdeeds.

We cannot agree with Andrew Carnegie, that "Europe owes him for forty years of peace," but on the other hand, we can most heartily accept the statement that has been made, "that after five unsuccessful efforts to get into a scrap in less than five decades, he has at last developed a storm-cloud that has not only enveloped Europe, but the entire world in its gloom, and has been the cause of arraying millions against millions of his fellow beings in a life and death struggle." For more than forty years he has overburdened a frugal, industrious, honest and most lovable and enlightened and educated people with unnecessary burdens, and taking much of the valuable time of its young men to make a most magnificent war machine, at last has caused the death of many of his too willing but mislead subjects, to say nothing of the cripples and helpless men that will survive, and most dire lot of all is the sad fate of the helpless children and widows that he will bequeath his and their Fatherland.

As to the effect of the war on this country, various conjectures have been made. It has already caused a financial stress that has been at least annoying and disagreeable. That it will cause the prices of foodstuffs to advance, and while that will be an advantage to the producer, how about the consumer? While the hog and hominy, horses and cattle, wheat and even tobacco will bring better prices to the farmer, our great staple, "King Cotton," having an influence North as well as South, East and West will have quite a backset "until this cruel war is over." Its interference with our imposts will cause a deficiency of about one hundred million dollars per annum, which must be made up by increased taxes. Many of our drugs and chemicals are "made in Germany," and already prices have advanced more than double on some, while there is and will be quite a scarcity of not a few others. But we cannot go further along this line for fear of wearying our readers. However, be our own troubles great or small, we do most sincerely hope and pray that our own people, and those in authority over us, may carefully and steadily pursue a course

of strict neutrality and keep our fingers out of a dish that will burn all who touch it.

The marked improvement (God save the mark!) in the implements of war in recent years are worthy of brief consideration. The immense tonnage and capacity of the modern iron-clad, the advantages in handling it and its huge cannon by means of electricity and steam, the submarine, the Zeppelin and other air craft for both reconnoitering as well as death dealing uses, the machine guns and cannon of heretofore undreamed of calibre, the high-power explosives, will all contribute to a formidable death rate, possibly surpassing that of former wars; and the millions—not thousands—of "horse, foot and dragoons," and the astonishing and almost incredible range of small arms and cannon are well nigh astounding in their possibilities of dealing death and destruction.

Both charges and counter-charges have been made by both sides as to barbarities and inhuman conduct. However, it is well established as a fact that the Belgians have suffered most grievously. The destruction of the beautiful little city of Louvain, once the home of the grandfather of Andreas Vesalius; as well as the damages to Liege, Brussels and other smaller towns, villages and hamlets, to say nothing of the many farmsteads and homesteads that were trampled beneath the feet of armed foes; and La Belle France, the damage wrought to the magnificent Cathedral of Rheims with its centuries of historic renown will ever be deplored. The charges of the use of the "split-nosed," soft or "dum-dum" bullet, we consider unfounded. The pointed, jacketed bullet used in modern small arms, by reason of lessened velocity or other causes, sometimes on impact, is "set up," and will force its way through the tissues in its length instead of in its diameter, its greatest weight being in its base, thus making a much more destructive and lacerating wound than in entering in its diameter, resembling very much the terrible effects of the "dum-dum," which was originally made and should only be used in dealing with the more ferocious wild animals.

Dr. Alexis Carel, of the Rockefeller Institute, who is seeing some "surgery" in the hospitals of Lyons, in a recent letter writes as follows:

"The French wounded arriving here daily are in good condition. They have no fever, and the manner in which their wounds are dressed and the state of their wounds prove that surgical service at the front works splendidly and in good order. A great number of German wounded are also arriving here. They receive exactly the same care and attention as the French wounded. It seems that the German method is not so good as the French method, because most of

their wounds are infected." Possibly a similar statement would be made by a German-American, with the conditions of French and German reversed.

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#### AS TO BACTERIA IN PRURITUS ANI.

*Kansas City, Mo., September 2, 1914.*

*Editor Southern Practitioner*—Dear Doctor: It is to laugh as one reads the articles on Pruritus Ani, and the original research work of Dr. Dwight H. Murray, eliminating diabetes, parasites and eczema, what is there left? *Streptococcus fecalis* can be found in 90 per cent of all healthy ani just as we find the various malignant bacteria in the mouths of healthy children. No wonder medicine becomes a joke to thousands and that they take to the many fads of religious and mechanical treatments. I have never yet met a case of pruritus ani or vulvae that called for a vaccine or that could not be cured if common sense treatment was used. Pardon my trespass on your time, but there are so many so-called and self-styled researchers and investigators along the lines of least resistancelike hunting for a bacteria in pruritus ani. Dr. Capper gets right at the root of the matter and cures the trouble without research work of four years and taking up time in society meetings or space in a medical journal. Fraternally yours,

A. M. WILSON, M. D.

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**PRELIMINARY ANNOUNCEMENT:—THE AMERICAN ASSOCIATION FOR STUDY AND PREVENTION OF INFANT MORTALITY.**—The Fifth Annual meeting of the Association will be held in Boston November 12-14, 1914. The programme will include sessions arranged by the Committees on Nursing and Social Work, Pediatrics, Vital and Social Statistics, Obstetrics, and Public School Education. The subjects to be discussed will include: "Prenatal Care," "The Need for Increased and Improved Maternity Hospital Service," "Institutional Mortality," "Continuation Schools of Home-Making."

The Sessions on Nursing and Social Work and the Joint Session on Pediatrics and Vital and Social Statistics will be held at the Harvard Medical School. All other sessions will be held at the Copley Plaza Hotel.

Special clinics will be held on the opening day of the meeting at the Harvard Medical School and elsewhere, the exact time and place to be announced later. An exhibit will be held in connection with the meeting.

The Chairman of the Committee on Local Arrangements is Dr. Hugh Cabot, 87 Marlboro Street, Boston, Mass.

Further information or circulars in regard to the work of the

Association can be secured from the Executive Secretary, 1211 Cathedral Street, Baltimore, Md. The Association invites you to become a member.

#### PROVISIONAL SCHEDULE.

Thursday, November 12—Morning:

10:00 A. M.—Executive Committee meeting.

11:00 A. M.—Annual meeting of the Board of Directors. The Committee on Clinics is arranging for a series of clinics which will be held during the morning at the Harvard Medical School, at the Children's Hospital and elsewhere. Clinics for well babies will be held at the stations of the Boston Milk and Baby Hygiene Association.

12:45 P. M.—Complimentary luncheon for members of the Association at the Children's Hospital.

Afternoon—Place, Harvard Medical School.

2:00-4:00 P. M.—Session on Nursing and Social Work.

4:00-6:00 P. M.—Joint Session Pediatrics and Vital and Social Statistics.

Night—Place, Copley Plaza Hotel.

8:30 P. M.—General-Session. Address by the President, Dr. J. Whitridge Williams, followed by an informal reception.

Friday, November 13. Place, Copley Plaza Hotel—Morning:

9:30 A. M.—Annual business meeting of the Association.

10:30 A. M.—Reports of affiliated societies.

Afternoon:

2:00-4:00 P. M.—Session on Obstetrics.

Saturday, November 14. Place, Copley Plaza Hotel—Morning:

9:30 A. M.—Business meeting of the Association. Report of the Committee on Resolutions.

10:30 A. M.—Session on Public School Education.

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#### POSITIONS FOR YOUNG MEN IN THE PUBLIC HEALTH SERVICE:—

Boards of commissioned medical officers will be convened to meet in the Bureau of Public Health Service, 3 B Street, S. E., Washington, D. C., and at the Marine Hospitals of Boston, Mass.; Stapleton, N. Y.; Chicago, Ill.; St. Louis, Mo.; New Orleans, La., and San Francisco, Cal., on Monday, October 19, 1914, at 10 o'clock A. M., for the purpose of examining candidates for admission to the grade of assistant surgeon in the Public Health Service, when applications for examination at these stations are received in the bureau..

Candidates must be between twenty-three and thirty-two years of age, not less than five feet, four inches, nor more than six feet, two inches in height, graduates of a reputable medical college, and must furnish testimonials from two responsible persons as to professional



and moral character. Service in hospitals for the insane or experience in the detection of mental diseases will be considered and credit given in the examination. One year's hospital experience or two years' professional work is compulsory.

In addition to the physical examination candidates are required to certify that they believe themselves free from any ailment which would disqualify them for service in any climate and that they will serve wherever assigned to duty: After four years' service assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon. Assistant surgeons receive \$2,000, passed assistant surgeons \$2,400, surgeons \$3,000, senior surgeons \$3,500, and assistant surgeon generals \$4,000 a year. When quarters are not provided, commutation at the rate of \$30, \$40 and \$50 a month, according to the grade, is allowed. The tenure of office is permanent. Officers traveling under orders are allowed actual expenses.

For invitation to appear before the board of examiners, address "Surgeon General, Public Health Service, Washington, D. C."

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A PHYLACOGEN FOR TYPHOID FEVER:—An announcement that will undoubtedly occasion widespread interest among physicians is appearing in current medical journals over the signature of Parke, Davis & Co. We refer to the announcement of Typhoid Phylacogen. The new product is prepared from pure cultures of the bacillus typhosus of Eberth and Mixed Infection Phylacogen. As the name signifies, this latest phylacogen is indicated in the treatment of typhoid fever or any pathological condition due to infection with the bacillus typhosus. Before being formally offered to the medical profession, Typhoid Phylacogen was subjected to rigid clinical tests extending over two years. The most significant fact developed by these investigations appears to have been the prompt amelioration of symptoms and rapidity of recovery in successful cases. Indeed, it is evident that, when properly treated, recovery not uncommonly takes place in approximately half the time required under conventional methods.

Parke, Davis & Co. have issued a thirty-two page brochure on Typhoid Phylacogen which deals in extenso with the new method of treatment, discusses diagnosis, dosage, technique of administration, etc., and reproduces a valuable paper by Dr. E. P. Benoit, professor of clinical medicine in the Laval University and physician at Notre Dame Hospital, Montreal, read before the Medical Society of Montreal and later published in "*L' Union Medicale du Canada*." Dr. Benoit refers at some length to a number of typhoid cases that were treated at the Notre Dame Hospital, concluding his paper with the significant observation that "the treatment of typhoid fever with Phylacogen gives

real results." Physicians are advised to send for a copy of this "Typhoid Phylacogen" pamphlet, addressing their requests to Parke, Davis & Co., at their home offices in Detroit, Michigan.

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**BOVININE—ITS USE IN ULCERATIVE PROCESSES:**—The recent advances in our knowledge regarding the properties and powers of normal blood and blood serum have opened up a broad and important field in widening their therapeutic use.

Important among these properties are the activation of the function of the phagocytic white blood cell which combats bacterial infection, the supplying of complement to augment the immunizing and antitoxic power of the blood of the subjects of infection, and the power to diminish bleeding in those who have the bleeding tendency.

Such properties as these make Bovinine, which contains unheated normal beef blood serum, an exceptional preparation for use in the local treatment of ulcers—especially of the sluggish type of leg ulcer—which are so resistant to all previously known forms of treatment. Combining, as it does, these important biological properties with the fact that it is a concentrated albuminous food rich in non-irritating hemoglobin, Bovinine has come to be considered the ideal medicament in all cases of gastric and duodenal ulcer. Taken alone in these conditions, or added to cold peptonized milk or plain milk and lime water, it diminishes the bleeding, raises the blood hemoglobin and stimulates the local repair of the ulcer, activating the anti-bacterial power of the serous exudate at the base of the ulcer and stimulating the process of granulation.

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**LIPPINCOTT'S MAGAZINE FOR OCTOBER:**—"The Rose-Garden Husband," by Margaret Widdemer, is a highly entertaining novlette by a young author of brilliant and fertile mind. H. de Vere Stacpoole, the popular Englishman, has done nothing better than "The Return of the Viking." Sally Nelson Robins' penetrating story of an ambitious wife will find an echo in many hearts. She calls it "Henry Waring—Honest Man." A college president and a billiard-hall proprietor meet in unusual circumstances in "A Game of Billiards," by Eugene A. Clancy. So much more is "sensed" than told in "A Flash of Lightning," the dramatic story of an elopement, by David Potter. Lucy Copinger has the true sporting spirit in her baseball tale, "The Public At'erletic Leaguer." "Conscience, Chivalry, and Correspondence," an amusing complication in a love affair, is by Mary Caroline Farmer. Gifford Pinchot will talk briefly, but to the point, about "Forestry as a Profession." An historical paper on "Stanton, Lincoln's Secretary of War," by James Matlock Scovil, is of seasonable value; and some

practical thoughts by Col. Willard French on "Investigating Icebergs," cannot fail to arrest attention. Dr. Edward Sherwood Mead will give important advice on matters financial.

In addition there will be many pages of humor—"Walnuts and Wine;" miscellaneous sketches and poems, making a first-class number.

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**COD LIVER OIL AS A NUTRIENT:**—In passing judgment on cod liver oil it should be remembered that it is a food agent and not a drug. If this is done the value of this nutrient will be much better appreciated. Since cod liver oil is an agent that must be given over long periods of time, it is very essential that a palatable product be chosen, otherwise the gastric apparatus will be disturbed. Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is a very valuable preparation of the oil and it is in wide use among the medical profession. Containing, as it does, all the active principles of the oil, its effectiveness is in no wise diminished by reason of the process it has gone through, on the contrary its very palatability has added to its therapeutic value by making it possible to give it under the most trying circumstances and contributing to its ease of assimilation.

Cord. Ext. Ol. Morrhuæ Comp. (Hagee) will be found of high worth in states of under nourishment.

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**DANGER DUE TO SUBSTITUTION:**—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The more recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

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**ALCOHOL AS A MEDICINE:**—Dr. A. Jacobi, of New York, taking up the challenge of a writer, who felt that alcohol was to be classed more as a sedative or anesthetic than as a medicine, remarks that the time will never come when alcohol will not be needed in illness, because "there are conditions which absolutely demand the use of alcohol as a prominent part of medication."—*Louisville Monthly Medical Journal*.

"THE TRAVEL STUDY CLUB OF AMERICAN PHYSICIANS, which made a successful study tour of Europe last year, has completed the plans for its 1915 Study Tour to the A. M. A. meeting in San Francisco, Honolulu, Japan, the Philippines, China, with optional return via Siberia and Europe (war permitting), or via Canada. This being the first party of American physicians ever visiting the Far East and the new possessions of the United States, a most cordial welcome can be expected by authorities and members of the medical profession. The Travel Study Club would like to make its enterprises as representative as possible and asks all those interested to communicate with the Secretary, Dr. Richard Kovacs, 236 East Sixty-ninth Street, New York."

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A WORTHY ALLY—WAR, OF NO WAR:—Every busy physician is in daily need of a *safe, pleasant, and thorough alimentary stimulant* for his patients. In Phil. Cascara Comp. Robins, Mild and Strong, he has a dependable compound, the dose of which can easily be regulated to suit each patient.

If you have never prescribed this valuable remedy which has been used with constant satisfaction by the profession nearly twenty years, or if in trying out the many preparations before you to-day, you have temporarily lost sight of the excellence of *Robins'*—the original Pil. Cascara Comp., read their advertisement in this issue and write for samples. We believe a comparative test will prove these pills the *best* you have ever used.

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A SUCCESSFUL MEDICAL PRACTITIONER of many years standing makes the following statement:

"There are a large majority of combinations which extemporaneous pharmacy cannot prepare properly; and I know that through the dishonesty, ignorance, or indifference of many retail druggists we are not able to get in prescriptions the very best drugs; hence it is to the manufacturing pharmacist, whose best interest lies in the purity and uniformity of his product, that we look for our most reliable remedies.

"I endorse worthy proprietaries, but I most heartily condemn the great tendency of manufacturing pharmacists to foist upon the profession and public cheap imitations of standard preparations."

"In this connection, I most heartily endorse the use of *Tongaline*, in which the salicylates used are made from the essential oil of winter-green."

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CHRONIC BRONCHIAL AND PULMONARY AFFECTIONS:—There is a considerable number of chronic bronchial and pulmonary disorders in

which the administration of iodine in some form would prove serviceable. Thus in chronic bronchitis and pleurisy, in conjunction with the syrup of iodide of iron the iodide of potash will prove of benefit. An excellent means of exhibiting the iodides in such cases is offered by Iodia (*Battle*). This preparation will also prove of advantage in other pulmonary or bronchial disorders in which an indication for iodine may exist. A point of superiority in Iodia (*Battle*) is its palatability.

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**SOUTHERN MEDICAL ASSOCIATION:**—The annual meeting of this Association, to be held in Richmond, November 9-12, inclusive, promises to be one of the most interesting medical meetings ever held in the South. The Association is composed of physicians and surgeons from all the Southern States, many of them eminent in the profession, and it is estimated that there will be several hundred in attendance. In point of size and importance, the Southern Medical Association easily ranks next to the American Medical Association. Dr. Stuart McGuire, of Richmond, Va., is president, and Dr. Seale Harris, of Mobile, Ala., secretary-treasurer.

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**GOOD ADVICE:**—When it is deemed advisable to place patients on milk diet, the same will be retained with greater comfort and rendered more digestible if *Phillips' Milk of Magnesia* is used, a *teaspoonful* as a rule *being sufficient to neutralize a pint of fresh milk*. It does not impart any foreign odor or disagreeable taste to the milk as does Lime Water and other antacids.

As a gastric sedative to control nausea and vomiting, as in pregnancy, after anæsthetics, etc., *Phillips' Milk of Magnesia* may be given in one or two teaspoonfuls on cracked ice every hour or two.

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**INCREASED ENDOWMENT:**—The endowment of the Rockefeller Institute for Medical Research has been increased by its founder by \$2,500,000. An additional \$1,000,000 was given to establish a department of animal pathology. The total gifts by Mr. Rockefeller to the institute now amounts to \$12,500,000. Mr. James J. Hill gave \$50,000 to the new department of animal pathology to use in the study of hog cholera. Doctor Theobald Smith, formerly professor of comparative pathology to the Medical School of Harvard University, has been made director of this new department.

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**NERVOUS INSTABILITY:**—Few agents at the physician's command for employment in nervous disorders serve such a satisfying purpose

as does Pasadyne (Daniel) in unstable states of the nervous system. Its value in this direction lies in its marked soothing properties, a value which must be all the more emphasized when it is recalled that no evil effects follow the use of Pasadyne. Its administration brings about an early relief of highly nervous states. A sample bottle may be had by addressing the laboratory of John B. Daniel, 34 Wall Street, Atlanta, Ga.

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**SURGEON-GENERAL UNITED CONFEDERATE VETERANS:**—We have had recent information that General Bennett H. Young, Commander-in-Chief of the U. C. V., has appointed Dr. Joel C. Hall, of Anguilla, Miss., to succeed to the vacancy occasioned by the death of the late Surgeon-General, Dr. C. H. Tebault, of New Orleans, La.

We most heartily congratulate the U. C. V. organization on the appointment of Dr. Hall, who served most faithfully and well as Surgeon of the 15th and 37th (consolidated) Tenn. Regiment, and as Senior Surgeon of Bate's Brigade. He was most sincerely esteemed and respected by both rank and file, and especially so by General Wm. B. Bate, who, often in days after the close of the war, spoke most highly of his meritorious and earnest work. Serving in the same brigade with him from the time of its formation in the early spring days of 1863 to the surrender of General Joe E. Johnston's army at Greensboro, N. C., we had daily observation of his genial, courteous and kindly demeanor, so characteristic of a true soldier and honorable man.

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**A MOUTH-WASH IN FEVER CASES:**—In all fever cases in which the tongue is coated, the lips dry and cracked, and the teeth covered with sordes, the use of some cooling and soothing mouth-wash would seem to be indicated.

Glyco-Thymoline in a 25 per cent solution with cold water fills this want perfectly. Its frequent use is grateful to the patient and at the same time a great factor in relieving the condition.

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**A VETERAN:**—The chief was interviewing the young man who had applied for work.

"Have you had any experience in the lunch business?" he asked.

"Why, I should say so," replied the energetic youth. "I've been lunching for almost twenty years."—*October Lippincott's*.

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When a man and a woman discusses the subject of matrimony, one seldom gets the better of the other. It usually results in a tie.—*October Lippincott's*.

## Selections

**EUTHANASIA:**—It may be recalled how in a dreadful railway accident a man crushed under the engine implored that he be killed in order for the ending of his agony. A surgeon mercifully passed chloroform to him so that by breathing it his sufferings could be alleviated. He died, in all likelihood not of the chloroform, but of his injuries. About that time "Brother" Gillette, of the Shaker Colony at Ashton, Florida, was imprisoned on the charge of "assisting out of this life" "Sister" Marchant, and he was freed because the grand jury would not indict either him or "Sister" Sears, who admitted with him, that they had chloroformed Sister Marchant. They maintained that they had a moral right to do this by reason of the great physical suffering of the aged Sister Marchant. "So pitifully did she plead, and so great appeared her agony" that this "brother and sister," after conferring with others of the Shaker Colony, decided to "help her." Two ounces of chloroform were poured on a cloth, the aged woman gave the signal that she was ready, and then she allowed the cloth to be spread over her face. Many people defended this euthanasia.

Maurice Maeterlinck, a very profound and moving writer, has in his book, "Death," reopened this most pregnant question of euthanasia. He declares that all our knowledge helps us to die in greater pain than the animals that know nothing. As science progresses it but makes for a prolongation of the agony of death—the most dreadful and the sharpest peak of human pain and horror, at least for the witnesses. "All the doctors consider it their first duty to protract as long as possible even the most excruciating convulsions. Who has not, at a bedside, twenty times wished to throw himself at their feet and implore them to show mercy. "The prejudice [believes Maeterlinck] against the arbitrary induction of a painless and premature death will one day be regarded as barbarian, as "a relic

of the times when humanity was convinced that any known torture was preferable to those awaiting us in the unknown;" and he predicts that a day will come when science will no longer hesitate to shorten human misfortunes; "when life, grown wiser, will depart silently to its hour, knowing that it has reached its term, even as it withdraws every evening as we sleep, knowing that its day's task is done."

Now, Maeterlinck writes like a poet and a mystic; it is very probable, indeed, that he knows nothing or very little, indeed, of the practical aspects of suffering, such as physicians have every hour to deal with—else he would surely not urge such dreadful responsibilities upon physicians as he does in his fascinating book; nor is he in his writing quite accurate. To relieve pain is the first thing a practitioner will do; and to the extent, at least, that the life of the patient will not be jeopardized by the amount of the anodyne. And this the physician is ever eager to do: first, because there is nothing so killing as pain nor anything so destructive of the patient's vitality; and secondly, because there is nothing so distressing to the on-looker as a fellow mortal suffering excruciating torture.

Nor are physicians hardened men; there is no class of men more genuinely sympathetic. None but a compassionate physician can maintain a practice; because nobody wants to engage any other kind of a man. The span of the physician's life averages shorter than that in most other callings; and this, undoubtedly, because the sufferings of their fellows takes so much out of them; and it is not essential even to prolong any convulsions; and there would never be the slightest occasion for any one to implore the physician (with or without genuflexion) to alleviate sufferings.

A most vital consideration (and one which always proves conclusive in sane discussions of the euthanasia question) is that neither the physician nor any other mortal can ever



be sure of an infallible prediction of a fatal issue in any case. People that have suffered from seemingly irremediable illnesses have nevertheless lived to make physicians wish with all their hearts they had not been as positive in their untoward prognoses. To err in such predictions is human; and physicians are of all creatures the most human, as they are the most humane; only divinity can foretell unerringly the hour, the day, or the year of any one's death. Indeed, a woman who a year ago was begging for euthanasia has since left the hospital ward, and is glad she is alive.

What mortal, then, has any right to hasten any death upon his finite assumption of its inevitableness. Consider what a weed-choked field of evil possibilities would be cultivated were the opinions expressed so alluringly by Maeterlinck to prevail; were physicians, upon the plausible pleadings of heirs or other interested people, to assure the helpless sufferer "a gentle and easy death" before his appointed time. It is for such reasons as these that physicians must ever be on the negative side of the euthanasia question.—*The Dietetic and Hygienic Gazette.*

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LOCAL ANESTHESIA:—When I speak of local anesthesia, I speak of novocain and adrenalin anesthesia, as that is, in my opinion, the only drug or combination of drugs that should be used outside of the local application of cocaine to mucous membranes. I do not claim that everything in surgery can be done with novocain and adrenalin, but we can do a great deal more with it than we are doing, and with no danger to our patient, and with satisfaction to ourselves and the patient. The thing that I wish to emphasize most is that we are doing a great deal of surgery with general anesthesia, thereby greatly increasing or rather creating a risk and causing shock when we could do the

same work with local anesthesia with no risk or danger to the patient, and absolutely no shock.

The indications are every surgical procedure which can be painlessly performed by the use of local anesthesia, whether it be a minor or major operation. Especially is it indicated in those who are aged, weak, anemic or otherwise endangered by the use of a general anesthetic. Many will probably object on the ground of nervousness of the patient, etc., but this is in the vast majority of cases invalid, as the patient, by a little reassurance that he is not going to suffer and finding such to be true, will be perfectly quiet.

Now as to solutions, I use one-half of 1 per cent novocain in most all of my work as a general standby, using 5 grains of novocain and 10 drops of a 1-1000 solution of adrenalin to 2 ounces of water. Where it is necessary to use a larger amount of solution, I use  $7\frac{1}{2}$  grains of novocain and 20 drops of 1-1000 solution of adrenalin to 4 ounces of water. I usually use simply sterile water, but saline may be used. If the operation is to be prolonged, I add a little more adrenalin solution to prolong the anesthesia. As much as 60 drops can be used with safety, but is entirely unnecessary as a usual thing.

*Technique.*—A good tight syringe with a sharp needle is essential. I prefer a recording syringe with ground glass plunger, as it does not leak and can be boiled without injury. It is well to have several needles, using a short one for the skin, and longer ones to infiltrate the deeper tissues.

The success or failure of local anesthesia lies in doing it right. The reason people fail with this as in everything else is, because they never "catch the trick." The "trick" is to do it right, and carefully infiltrate everywhere, especially well beyond where you expect to cut.

The skin and field of operation is prepared in the usual aseptic way according to the choice of the operator. Personally, I use iodine painted on the surface and wiped off

with alcohol. Of course, the skin is washed with tincture of green soap, shaved and allowed to dry before the iodine is applied, or quickly dried with alcohol in emergencies. After the field is prepared, the production of anesthesia is in order. Infiltrate the skin in the line of incision, injecting into and not underneath the skin, making wheals as you go, running the needle along in the skin and starting the next wheal in the edge of the last; carry this line at least one inch beyond where you are going to cut. After injecting the skin, infiltrate the deeper structures to the full depth that you wish to cut. In doing laparotomies, it is necessary to infiltrate the parietal peritoneum separately and for at least a half inch outside of the line of incision, as this permits the free use of retractors which otherwise could not be used. It is also advisable to infiltrate the visceral peritoneum, though not absolutely necessary, as this seems to favorably influence the ilius and troublesome formation of gas in some cases not so treated. It is well in operating in the vicinity of large nerve trunks to infiltrate them separately, being sure that they are relaxed, for when relaxed there is no pain, but when on the stretch injecting them causes severe pain.

In conclusion, I will say that it is necessary, first, *to know your anatomy*; second, infiltrate thoroughly; third, avoid blunt dissection, and fourth, ligate everything that bleeds.

Lastly, I have operated and assisted in 197 cases under novocain and adrenalin, and have not seen any bad effects, locally or constitutionally. The cases were as follows: 80 hemorrhoids; 41 hernias; 11 appendices; 18 perineorrhaphies; 7 gall bladders; 8 amputations; 2 rib resections; 6 hydroceles; 3 suprapubic cystotomies; 1 thyroidectomy; 1 pus tube; 1 ovariectomy; 16 other minor operations; and 3 posterior gastro-enterostomies.

One of these gall-stone cases was very difficult, it being necessary to go through the duodenum, as the stone was

in the ampulla and could not be delivered any other way.—  
*H. A. Brady, M.D., in Virginia Medical Semi-Monthly.*

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**SPIRIT AND DRUG TAKING AMONG DOCTORS:**—Hospitals and sanatoriums for the treatment of mental and nervous diseases report an increasing number of physicians suffering from drug and spirit addictions. Can it be possible that there are greater prevalence of these diseases among physicians than ever before?

Evidently the use of spirits as a beverage is growing less, and more physicians seem to be total abstainers at society meetings and at banquets. In much the same way the old-time drinking clergyman has disappeared, and the use of spirits on all festive occasions has passed away. One author writes very emphatically that the strains and stresses among medical men today are greater than ever, and that competition and poverty are accountable for the use of drugs and spirits among doctors, to relieve the conditions of stress.

Another reason which has not been mentioned is the faulty teachings of professors of therapeutics and the practice of medicine in many medical colleges, who still insist that alcohol is a safe stimulant in moderate quantities and a tonic to be relied upon; also, that opium and its alkaloids—cocaine and other narcotic drugs—are harmless and safe if only used with discretion.

In one of the prominent colleges a professor used to give most glowing lectures on the good effects of opium, cocaine and some of the coal-tar derivatives. He made little or no mention of the dangers, but extolled the remedial effects that would follow, and advised the students to experiment on themselves and thus be able to determine the value and limits of the drug. For a number of years, every class which graduated under this teaching, contributed a number of drug-takers, and finally the professor died from an overdose of morphia, having been a secret user for several years.

A teacher of the practice of medicine still working at his

post, still urges alcohol as a safe tonic, and opium as most valuable. This man is making victims and actually training students to become inebriates and drug-takers.

Fortunately, these are rare examples. Teachers and professors in colleges have a great responsibility, if they do not make their students realize the danger from this source.

In all probability there are a great variety of causes of which faulty teaching is only one. Physicians who meet with success in the early part of their practice are very apt to become addicts under the mistaken notion that they need chemical help to enable them to do the work. Others who have great difficulty in building up a practice grow discouraged and for this find recourse in spirits and drugs. A third class cater to those who use spirits, and soon become like them, using spirits for real or imaginary causes.

The time is not far distant when a physician who is not a total abstainer, and who does not exemplify in his own life the highest type of both physical and mental health, will find great difficulty in securing a practice. Business men will demand the highest kind of mental efficiency possible in their medical advisers, and unless he measures up to this requirement the future will be difficult and dark.—*T. D. Crothers, M.D., in Texas Med. Jour.*

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A SUBSTITUTE FOR CARBON DIOXIDE SNOW:—*E. Sommer* (*Schweizerische Rundschau fur Medizin*, Jan. 10, 1914) advocates the use of acidum trichloraceticum as a substitute for carbon dioxide snow in dermatology. The latter has many disadvantages. It does not last long, and cannot, therefore, be despatched afar. The hire of cylinders is expensive, and their manipulation intricate. The author has found that trichloracetic acid is in many respects more satisfactory. It forms colorless crystals which easily volatilize. Its melting point is 56° C., and its boiling point is between 192° and 195°. It is soluble in water, spirits of wine, and ether. It is kept in a brown, glass-stoppered

bottle, and can be used in the form of crystals or a concentrated solution. It is so stabile when kept carefully corked in a dry place that it lasts for years.

The solution, which is more easily managed than the crystals, should be poured out into a watch-glass, care being taken not to contaminate the fingers. A drop is taken on a glass rod and placed on the skin, where it is lightly rubbed or pressed with the rod. This pressure is necessary to complete contact of the drug with the skin. The size and shape of the glass rod varies with the character of the area to be treated. When it is small, a small rod, with or without a bulbous end, should be used; when it is large, a thick rod with a bulbous or flat, shelving end should be used. The penetration of the drug being directly proportional to the pressure applied, this is increased when the disease is deep-seated.

To protect the skin in the neighborhood of the area to be treated a coating of collodion or mastisol should be applied. The latter is preferable, as it can be used as a dressing after the drug has been applied. This is allowed to dry, and though a dressing is subsequently not essential, it is useful. The area treated rapidly turns white, but it does not show the vesicles which may follow the application of carbon dioxide snow. The discoloration of the skin is followed by the formation of crusts, which fall off in one to two weeks. The treatment should not be repeated before the reaction has completely passed off. Often one application is sufficient.

The conditions suitable for the treatment are new growths of the skin, warts, keloids, pigmentations, nevi, freckles, tattoo marks, etc. The advantages of the treatment are its cheapness and simplicity. Neither great technical skill nor an elaborate apparatus is required. The drug is always ready for use and is not easily decomposed. The strength of the reaction can be graduated by the strength of the solution and by the pressure applied. The drug does not,

however, have such a penetrative action as carbon dioxide snow. The acid causes but little pain, but occasionally during or after its application a slight burning sensation is felt. The cosmetic results are good, and the author has seen no undesirable effects.—*British Medical Journal*, May 2, 1914.

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**ADRENALIN IN ASTHMA:**—Hertz in the *British Medical Journal* of May 2, 1914, recalls the fact that the effects of subcutaneous injections of adrenalin have recently been discussed in a number of papers. From a considerable personal experience Hertz has come to the conclusion that the dose generally used for asthmatic attacks is much greater than is necessary. The first dose he ever gave himself, about two years ago, was 3 minims of 1-in-1000 solution of adrenalin chloride. The relief of the asthma was almost instantaneous, but he felt extremely ill for some minutes, his hands shook so much that he could hardly put the syringe away, and his pulse became very rapid. Since that date he has given himself a large number of injections, but never more than 2 minims, and rarely more than one; for slight attacks half a minim has been sufficient. With these small doses the only effect he ever experienced is relief of the asthma, and this is invariable. No attack has kept him awake for longer than five minutes, except on one occasion when he broke the syringe, and was consequently awake all night. His pulse is hardly accelerated, and he does not feel the slightest discomfort. The relief is so rapid that he falls asleep within a minute or two of putting the syringe back into its case. Small doses of this kind have the further advantage that they are unlikely to have any permanent ill effect, such as the production of atheroma. Even if three or four doses are required in twenty-four hours, which is most unusual, the total amount injected is less than is commonly recommended for a single injection.

He adds that, so far as his experience goes, similar small doses have generally proved effective in other patients.—*Therapeutic Gazette.*

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**BLADDER DRAINAGE:**—Dr. E. B. Claybrook (*Old Dom. Jour. Med and Surg.*, June, 1914) recommends for acute urinary retention due to stricture and other causes the use of a good trocar instead of the usual needle. As soon as the stylet is withdrawn, a soft rubber catheter is passed through the sleeve into the bladder and left in place, withdrawing the sleeve carefully over the catheter. A strip of adhesive is then given a turn around the catheter and the two free ends fastened down to the skin. In these cases the bladder is always distended, and can be outlined, and the puncture made without any danger of injury to the peritoneum. It requires only a trocar, a catheter, and cleanliness to give the patient sure, safe, and permanent relief, until he can be placed where he can receive the necessary treatment to remove the obstruction. When the catheter is in place there is absolutely no leakage around it, and when it is removed, the sinus heals in two or three days if the urethra is freely open. This is simpler than any form of cystostomy, causes no shock and little pain, even if done without local anesthesia, and may well be used as a preliminary drainage operation in those cases of prostatic hypertrophy where preliminary drainage is demanded for some days or weeks before radical work can be attempted. Also, in cases with impermeable stricture, if this method is first used, and the bladder drained a few days, the swelling and congestion in the urethra will be reduced and the radical work done more easily and with less trauma and shock than if attempted as an emergency operation. The size of the catheter used is limited only by the size of the trocar. It must be small enough to feed easily and smoothly through the sleeve of the trocar. Bladder irrigations through the catheter may be carried on when indicated.



**PALLIATIVE SYMPTOMATIC TREATMENT OF TOXEMIC URTICARIA:**—Carefully observing during ten years, Allan Eustis has not encountered (*N. O. Med. & Surg. Jour.*, April) a single case of "idiopathic" urticaria in which intense indicanuria could not be established and which failed to yield to proper eliminative treatment.

However, in this connection he mentions the palliative symptomatic treatment of troublesome acute attacks that has been proposed by A. W. Swaun (*Amer. Jour. Med. Sc.*, 1913, p. 373); namely, the injection of adrenalin. This is the claim set forth: The hypodermic injection of a 1:1000 solution of adrenalin, followed in twenty or thirty minutes later by a second, similar, dose, as a rule will afford instantaneously complete relief from the intolerable itching, and a complete disappearance of all lesions for some four to eight hours. If this relief does not follow, one may be assured that the trouble is erythema multiforma rather than urticaria.

The fact that adrenalin locally applied will not prevent any experimental urticaria, as also because of the reappearance of the lesions after a while, the author holds, "lends weight to the theory of a toxic origin of the disease, and suggests that adrenalin acts as a hormone stimulating the cells to generation of the neutralizing substance.—*Am. Jour. of Clin. Medicine.*

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**OUTDOOR TREATMENT OF PUERPERAL INFECTION:**—For the past five years outdoor treatment of puerperal infection has been the routine in the Boston City Hospital. This E. B. Young and J. T. Williams (*Boston Med. Surg. Jour.*) report as having reduced the mortality from 44.6 per cent to 24 per cent. They say that this treatment probably exerts its action chiefly by increasing the amount of hæmoglobin in the blood. Sunlight is probably quite as important as fresh air. Curettage is contra-indicated in puerperal infection, because it increases the mortality nearly 10

per cent. A single intrauterine douche of sterile salt solution should be the only local treatment, and some writers deny the value of even this. Antistreptococcic serum and vaccines have not proven of much value. The outdoor treatment is the most effective known at present for puerperal infections.—*Canadian Practitioner and Review*.

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**TREATMENT OF ACUTE PULMONARY EDEMA.**—Albert Robin recommends the following combination of drugs for reducing the blood pressure in the presence of edema of the lungs:

|                          |             |
|--------------------------|-------------|
| Sodium Nitrate.....      | 1 gramme    |
| Sodium lactate.....      | 4 grammes   |
| Sodium silicate.....     | 2 grammes   |
| Potass. bicarbonate..... | 8 grammes   |
| Distilled water.....     | 120 grammes |

M. Sig.: Three to four tablespoonfuls of this are to be given every hour for four hours.—*Nevada Medicine*.

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**IODINE AS A WOUND DRESSING:**—Pickenbach and Lardy (*Med. Klinik*) praise the simplicity and the efficacy of the iodine treatment of wounds. Pickenbach even obtained perfect healing of dirty wounds by painting with iodine. In his opinion, it is impossible to find anything simpler, cheaper and more rapid for the disinfection of skin and wounds. The wound area is first freed from dirt as far as possible by means of cotton wool soaked in benzin, then the entire region, including the wound itself, is thoroughly painted with tincture of iodine and covered with iodoform gauze and a dry dressing.—*Critic and Guide*.

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**THE MEANING OF SUBSTITUTION TO THE PHYSICIAN:**—The substitutor prescribes for your patient without regard to your reputation or the welfare of your patient, assuming that you do not know your business. Why does he do it? For illegitimate profit. What are you going to do about it? —*Med. Herald*.

THE HYPOPHOSPHITES AGAIN:—The Journal of the American Medical Association seems to have a special grudge against the hypophosphites. In its issue of April 25 it delivers another broadside against this therapeutic agent. It takes two pages to show that the theory on which Dr. Churchill, who introduced the hypophosphites into medicine, based himself is erroneous. To all of which, we with all due respect to the writer of the article, say: bosh and again bosh! Or perhaps the German: Quatsch, is more expressive. Who the devil now administers the combined hypophosphites with any idea that they act as an oxygen carrier? We prescribe the compound syrup of hypophosphites, because it does the work we want it to do, because it acts as an excellent tonic, and produces permanent improvement in conditions of neurasthenia, debility, etc., and that it is not the strychnine that does it; this I can affirm most emphatically. I tried them two hundred times: the strychnine is purely temporary, ephemeral in its effects; the effect of the compound syrup of hypophosphites is lasting. I am quite sure that my readers will pay no attention to the ukases of well-meaning doctrinaires, but will prescribe those remedies which they have found empirically useful, no matter whether the theory on which the use of the remedy is based is correct or not. Results count, and the compound syrup or hypophosphites gives results.—*Critic and Guide*.

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SHALL WE BLAME THE PROOFREADER?—"Yes," said the good woman, who was describing the last illness of a friend, "she was taken suddenly sick with pantomime poisoning, and four doctors came to the house and insulted about her and diagrammed her case very closely. They decided that she had eaten some fish or something that had paragraphs in it, and so they gave her a hypocritical injection of a serial that would destroy the basilica, but it didn't seem to help any, as she was soon in the state of chromo."—*Cin. Lancet-Clinic*.

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### *Original Communications.*

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#### THE EFFECT OF ANTI-SYPHILITIC REMEDIES ON THE WASSERMANN REACTION.

WM. LITTERER, A.M., PH.C., M.D., NASHVILLE, TENN.

Prof. Bacteriology, Vanderbilt University, Medical Dept.

In attempting to collect statistics of various observers on the effects of Anti-Syphilitic remedies on the Wassermann reaction, one is confronted with great difficulties. In the case of mercury the figures vary greatly according to thoroughness of treatment, the various preparations and administration of the drug and the stage of the disease at which the remedy is given. In fact there is even now no absolute

agreement as to the best method of using the drug. In the case of salvarsan, the difficulties are still greater, owing to the newness of the remedy.

In judging of the serologic action of mercury, Howard Fox has compiled the records of twenty-one observers. He says that most of these reports deal with cases that were thoroughly treated by inunctions or injections in all stages of the disease. The percentage of negative results is perhaps too favorable for mercury, as some of the tests were made after a course of treatment. There were 1,634 cases compiled, giving an average of 64.8% of negative reactions following the use of Hg. In judging of the serologic action of salvarsan, one is struck by the great discrepancies in the results of different observers, particularly in the case of subcutaneous and intramuscular injections. Fox has also tabulated the results of thirteen observers who treated a total of 987 cases by these methods with an average of 47.4% of negative Wassermans. The results obtained by intravenous injections, especially when repeated or combined with intramuscular injections, are much more favorable.

By the use of triple intravenous injections, Gutmann obtained 74% of negative results, while Zimmern found 68% after two or more injections. By a combination of intravenous and intramuscular injections, Linsar obtained 70%, and Micheli and Quarelli 86% of negative results, while from this method, Spiethoff states that a negative reaction was obtained in a majority of his cases. Fox in his comprehensive article concerning the serologic comparison of the different methods of administration of salvarsan, states that McIntosh and Fields found 80% of negative results after intravenous injections as opposed to 53%, after intramuscular injections. On the other hand, Craig states that he obtained 78.6% of negative reactions after intramuscular injections mostly single as opposed to 63.8% after combined intramuscular and intravenous methods.

The value of the reports on salvarsan that have been quoted is lessened by the fact that the period of observation of the cases was short as a rule, seldom more than a few months. Fox quotes Heidingsfeld, in which he reports a series of 333 cases treated mostly by single injections. He says that out of this number 76.9% changed from a positive to a negative Wassermann; that 101 cases remained negative one year or more; fifty-eight, nine months or more; forty-five, six months or more; fifty, from one to three months; giving a total average of eight and one-fifth months for negative cases.

From the above figures quoted, it is quite apparent that no positive conclusions can be made as to the comparative serologic value of Hg. and salvarsan.

#### ABORTIVE TREATMENT.

From this method of treatment, some very strikingly good results have been obtained, from a serologic as well as a clinical point of view. Finger gave us the first reports on the abortive method by the use of salvarsan. He treated thirteen cases of primary syphilis by a single intramuscular or subcutaneous injection. During an observation period of twelve weeks to six months, six cases remained or became Wassermann negative. Milian treated twenty-three cases of primary syphilis by two to four injections (intravenous alone or combined with intramuscular), seventeen cases became negative and remained so from two to eight months, and showed no clinical manifestations during this time. Emery treated twenty-one cases by three intravenous injections, thirteen became negative and remained so for a period of three weeks to two and a half months. Of twenty-two cases treated by McDonough in which two intravenous injections at intervals of ten days were given, he states that these twenty-two cases which were primary with negative Wassermanns, have not as yet shown secondary symptoms, nor a positive Wassermann, although twelve months have

elapsed since treatment. The following is taken from Fox's article on the relative value of Hg. and salvarsan:

"Geronne and Butmann report a series of thirty-seven cases, seventeen of which were positive and twenty negative before treatment. The abortive method was successful in twenty-nine cases, the majority of the patients being observed over six months. Ten cases were under observation from twelve to sixteen months.

"Of fourteen cases treated by Stern, eight remained negative and showed no clinical symptoms for periods varying from four to fourteen months.

"Queyrat reports a series of seventy-eight cases treated by three intravenous injections at intervals of seven days. He found that fifty-one cases became negative and remained so for periods averaging about three months. None of them showed any clinical manifestations."

Favorable as some of these reports appear, it would seem that still better results in the abortive treatment are possible when salvarsan is combined with mercury. In a valuable communication Gennerich reports on eighty-three cases of primary syphilis treated by intravenous injections of salvarsan combined with injections of calomel. The calomel was given as soon as the diagnosis was made by finding the spirochetes. This was followed in one or two days by intravenous injections of salvarsan given at intervals of a few days, in some cases six injections being given. Of sixty-three cases which were negative at the beginning of treatment, all except four remained negative. Of twenty cases that were positive before treatment, all except four became negative and remained so. The figures of Gennerich are especially valuable owing to the comparatively long time of observation, thirty-seven of the cases having been followed for six months to a year, and twenty of the cases for more than one year.

Lowenberg treated twenty-four cases of primary syphilis by a combination of two intravenous injections of salvarsan and a course of mercurial inunctions. All of his cases remained Wassermann-negative and free from symptoms at the end of a minimum period of six weeks' observation.

Equally good results were obtained by Arning in the treatment of forty-five cases of primary syphilis and twenty-six cases showing the earliest secondaries, in which the average period of observations was four months, the longest being eleven months. His method consisted of a course of inunctions combined with an intramuscular and, ten days later, an intravenous injection of salvarsan. All of his seventy-one cases showed negative reactions and freedom from symptoms at the last period of observation.

Finally, Hecht has treated cases of primary syphilis by a course of mercurial inunctions combined with two intravenous injections of salvarsan, together with excision of the chancre (in a few favorable cases). Of fifteen cases that were Wassermann-negative at the outset, all except one remained negative during a period varying from four to eleven months.

#### ORIGINAL OBSERVATIONS.

Especial effort has been put forth to determine the efficiency of anti-syphilitic remedies, using the Wassermann test as a check. Below will be found eleven charts, which are in the main self-explanatory:

Chart No. 1. Represents sixty cases (secondaries). All Wassermann positive. Ten each were vigorously treated for two months with different preparations of mercury and by different methods. Wassermann test was tried at the end of the second month. In every instance the Hg. was pushed to salivation. The biniodide appeared to be the most effective in obliterating the Wassermann, while the protiodide least so. In this chart will be seen the result of a



single injection (intramuscular) of salvarsan at the end of two months. Again, the chart shows the percentage of negative Wassermanns at the termination of two months, as a result of a single intravenous injection of salvarsan.

### CHART NO. 1.

#### *Wassermann, After Two Months' Treatment.*

|   |
|---|
| After Injections of Biniodid—Negative 88%         |
| After Inunctions—Negative 85%                     |
| After Injection of "606"—72% Intramuscular        |
| After Intravenous Injection of "606"—66% Negative |
| After Mixed Treatment—Negative 64%                |
| After Protiodide Pills—40% Negative               |

Chart No. 2. Represents fourteen cases (secondaries). No previous treatment. All Wassermann positive. Each patient was given intramuscularly .6 of a gram of salvarsan. The Wassermanns were recorded on the first, second, third, sixth and ninth months.

### CHART NO. 2.

#### *Intramuscular Salvarsan Effect on Wassermann Test.*

| Months Observed      | 1    | 2    | 3   | 6    | 9    |
|----------------------|------|------|-----|------|------|
| Serum Reaction       | + —  | + —  | + — | + —  | + —  |
| 14 Cases Secondaries | 4—10 | 4—10 | 8—6 | 11—3 | 14—1 |
| Negative (Per Cent)  | 71   | 71   | 43  | 21   | 0    |

Chart No. 3. Shows seventeen cases (secondaries). No treatment having been instituted; every one showing the Wassermann reaction. Each patient was given an intra-

venous injection of .6 of a gram of salvarsan. The Wassermanns were made on the first, second, third, sixth and ninth months.

## CHART NO. 3.

*Intravenous Salvarsan Wassermann Test.*

| Months Observed      | 1    | 2    | 3   | 6    | 9    |
|----------------------|------|------|-----|------|------|
| Serum Reaction       | + —  | + —  | + — | + —  | + —  |
| 17 Cases Secondaries | 4—13 | 5—12 | 8—9 | 14—3 | 16—1 |
| Negative (Per Cent)  | 77   | 75   | 53  | 18   | 6    |

Chart No. 4. Represents eight cases, in which only one dose of salvarsan (.6 of a gram) was given intravenously. No other treatment was instituted. These cases were strictly primary ones. Duration of chancres no longer than one week. Every chancre excised before the treatment. The Wassermann test was negative. Tests of the blood were made on the first, second, third, sixth and ninth months.

## CHART NO. 4.

*Primary (3 to 7 days' duration chancre excised) Wassermann Neg. Intravenous Salvarsan.*

| Months Observed     | 1   | 2   | 3   | 6   | 9   |
|---------------------|-----|-----|-----|-----|-----|
| Serum Reaction      | + — | + — | + — | + — | + — |
| 8 Cases             | 0—8 | 0—8 | 0—8 | 2—6 | 4—4 |
| Negative (Per Cent) | 100 | 100 | 100 | 66  | 50  |

Chart No. 5. Shows twenty cases of secondaries, all strongly Wassermann positive. Secondaries showed up four to ten weeks from the appearance of the initial lesion. No treatment had been instituted. Two injections of salvarsan.

.6 of a gram each, were given from four to eight days apart. The Wassermann test was recorded on the first, second, third, sixth and ninth months.

#### CHART NO. 5.

##### *Two Intravenous "606" Four to Eight Days Apart.*

| Months Observed      | 1    | 2    | 3    | 6     | 9    |
|----------------------|------|------|------|-------|------|
| Serum Reaction       | + —  | + —  | + —  | + —   | + —  |
| 20 Cases Secondaries | 3—17 | 3—17 | 4—16 | 10—10 | 17—3 |
| Negative (Per Cent)  | 85   | 85   | 80   | 50    | 15   |

Chart No. 6. Represents twelve cases of primary syphilis, with a duration of the chancre ranging from three to thirty days, with a negative Wassermann in all the cases. No treatment given except a single dose, .6 of a gram of salvarsan. The Wassermann was recorded the first three months, then on the sixth, and finally on the ninth month.

#### CHART NO. 6.

##### *Primary (3 to 30-day duration) Wassermann Negative Intravenous Salvarsan.*

| Months Observed     | 1    | 2    | 3    | 6   | 9   |
|---------------------|------|------|------|-----|-----|
| Serum Reaction      | + —  | + —  | + —  | + — | + — |
| 12 Cases            | 0—12 | 0—12 | 1—11 | 4—3 | 8—4 |
| Negative (Per Cent) | 100  | 100  | 91   | 66  | 33  |

Chart No. 7. Records seven primary cases of three to twenty-two days' duration, with a negative Wassermann. No treatment instituted save a single intragluteal injection

of salvarsan (.6 of a gram). The Wassermann test was made on the first, second, third, sixth and ninth months.

#### CHART No. 7.

*Primary (3 to 22 days' duration) Wassermann Neg. Intramuscular Salvarsan.*

| Months Observed     | 1   | 2   | 3   | 6   | 9   |
|---------------------|-----|-----|-----|-----|-----|
| Serum Reaction      | + — | + — | + — | + — | + — |
| 7 Cases             | 0—7 | 0—7 | 2—5 | 4—3 | 5—2 |
| Negative (Per Cent) | 100 | 100 | 71  | 43  | 23  |

Chart No. 8. Represents four primary cases. Chancres excised. Wassermann negative. Each case received .6 gram of salvarsan intravenously and mercurial inunctions were given to near salivation for one month. Wassermanns were made in all the cases on the first, second, third, sixth and ninth month.

#### CHART No. 8.

*Intravenous Salvarsan Plus Hg. Inunctions. Excised chancre.*

| Months Observed     | 1   | 2   | 3   | 6   | 9   |
|---------------------|-----|-----|-----|-----|-----|
| Serum Reaction      | + — | + — | + — | + — | + — |
| 4 Cases             | 0—4 | 0—4 | 0—4 | 0—4 | 1—3 |
| Negative (Per Cent) | 100 | 100 | 100 | 100 | 75  |

Chart No. 9. Shows five Wassermann negative primary cases with no excision of chancre. To each case an intravenous .6 gram of salvarsan and vigorous mercurial in-

unctions for one month were given. In every case the Wassermanns were recorded on the first, second, third, sixth and ninth month.

CHART NO. 9.

*Intravenous Salvarsan and Hg. Inunctions.*

| Months Observed     | 1   | 2   | 3   | 6   | 9   |
|---------------------|-----|-----|-----|-----|-----|
| Serum Reaction      | + — | + — | + — | + — | + — |
| 5 Cases             | 0—5 | 0—5 | 0—5 | 1—4 | 2—3 |
| Negative (Per Cent) | 100 | 100 | 100 | 80  | 60  |

Chart No. 10. Shows eight Wassermann positive, secondary cases. Each case received two intravenous injections of salvarsan (.6 grams) seven days apart and in addition two months vigorous treatment of Hg. injections (salicylate of mercury). The Wassermanns were recorded in every case on the first, second, third, sixth and ninth month.

CHART NO. 10.

*Secondaries—Two Intravenous "606" and Hg. Injections.*

| Months Observed     | 1   | 2   | 3   | 6   | 9   |
|---------------------|-----|-----|-----|-----|-----|
| Serum Reaction      | + — | + — | + — | + — | + — |
| 8 Cases Secondaries | 0—8 | 0—8 | 1—7 | 2—6 | 4—4 |
| Negative (Per Cent) | 100 | 100 | 87  | 75  | 50  |

Chart No. 11. Represents eighteen cases of secondary syphilis. All strongly Wassermann positive. Each received an intravenous injection of Neosalvarsan .9 grams. The Wassermanns were recorded on the first, second, third, sixth and ninth months. No other treatment was given.

## CHART No. 11.

*Neosalvarsan Intravenous—Secondaries—Wassermann Positive.*

| Months Observed      | 1    | 2    | 3   | 6    | 9    |
|----------------------|------|------|-----|------|------|
| Serum Reaction       | + —  | + —  | + — | + —  | + —  |
| 18 Cases Secondaries | 4—14 | 5—13 | 9—9 | 15—3 | 17—1 |
| Negative (Per Cent)  | 88   | 73   | 50  | 15   | 5    |

## SPIROCHAETAE REFRACTORY TO SALVARSAN.

There are certain strains of spirochaetae that are especially refractory to the action of salvarsan. I have seen two cases in which seven doses of the drug were given without the Wassermann being in the least affected, although the clinical symptoms disappeared after the third intravenous injections. Hypodermic injections of Hg. for one month succeeded in obliterating the Wassermann in the two above cases.

## SPIROCHAETAE REFRACTORY TO MERCURY.

I have encountered fourteen cases of malignant lues in which Hg. and the iodides failed. All showed actively positive Wassermans in spite of treatment with vigorous anti-syphilitic remedies. The Wassermann was obliterated in ten cases in eight weeks' time as a result of an intravenous injection of salvarsan. The remaining four were given another injection, which resulted in obliterating the test in two cases, while the remaining two were unaffected by the third dose, yet the symptoms entirely disappeared.

## CONCLUSIONS.

(1) From the serologic point of view, injections of the biniodide of Hg. give better results, while the protiodide pills are the least satisfactory.

(2) Apparently there is no very great difference serologically between the administration of salvarsan intra-

venously or intramuscularly in treating secondary syphilis.

(3) Neosalvarsan appears to be less efficacious than salvarsan.

(4) In the primary stage of lues, especially before the appearance of a positive Wassermann and chancre excised, repeated intravenous injections of salvarsan or neosalvarsan give promise of aborting the disease in quite a number of cases.

(5) Serologically a combination of Hg. and salvarsan appear to have a distinct advantage over the administration of either of the drugs.

(6) The Wassermann test as a therapeutic guide in the treatment of syphilis is paramount, if we wish to carry our patients to a successful termination; in fact, it is the only method available of controlling the disease before external manifestations occur.

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### JOINT AFFECTIONS.\*

BY E. M. FUQUA, M.D., NASHVILLE, TENN.

Joint troubles present perplexing problems to the clinician. Almost every day we are confronted with new combinations of the arthritic puzzle. Cases of chronic arthritis are so common, so distressing to the patient, and so rebellious to treatment, that their study is one of the greatest interest and importance. Nearly every writer on the subject has his own classification. Some classify according to clinical manifestations, others according to pathology, others according to etiology, and still others by various combinations of these methods, till there has arisen a great variety of confusing terms. Various observers have described the same disease under different names, and have applied the same name to such widely differing conditions, that at times we are inclined to feel that we are hopelessly swamped in the chaos of nomenclature.

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\*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, October 20, 1914.

However, in the last few years, the laboratory (with the Wasserman test, the Complement Fixation test, microscopical examinations, germ cultures, and animal inoculation) has come to our aid, and with our increasing knowledge of focal infections, a light is beginning to shine upon this complex subject.

In view of the fact that successful treatment depends largely on the cause of the lesion, I think the classification should be upon an etiological basis. To me the following classification is most helpful:

- 1—Traumatic Arthritis.
- 2—Infectious Arthritis.
- 3—Trophic Arthritis.
- 4—Metabolic Arthritis.

Practically all cases will fall in one of the first two classes, viz: trauma or infection.

*Trauma.*—I think trauma is underestimated as a primary and also as a predisposing cause of joint troubles. Fracture of the bones near, or extending into the joint, with displacement and callous formation, often leaves it permanently enlarged and functionally imperfect. Traumatic separation of the Patella tubercle from the tibia, causing a lameness that may be attributed to the knee joint is sometimes seen. The stretching and laceration of the ligaments, or the displacement of the cartilages, causes an irritation that may require quite a long time to subside. Excessive use of a joint over a long period of time may cause a thickening of the synovial membrane and other soft parts and even an hypertrophy of the bony structures. The enlarged joints of the fingers in baseball players, due to trauma, is quite familiar. Chronic irritation from pressure or abnormal position of the bones of a joint causes enlargement as is seen in Hallux Valgus,. Foreign bodies in or near a joint may cause impairment or even ankylosis. Hemorrhage into a joint from trauma, especially in hemophiliacs, may result in serious damage.



That trauma acts not only as an exciting cause, but as a predisposing cause in many cases of chronic joint trouble cannot be denied. The exciting cause in many instances is superadded infection. A slight derangement in a joint, whether it be a partially dislocated meniscus, a torn synovial fold, or an evulsion of a ligament, will often invite to that joint an infection, which it, in a more healthy condition, might escape.

*Infection.*—There is scarcely a disease in the category of infections that has not had joint involvement associated. Among the most frequent I would mention Streptococcic infections, Gonorrhea, Syphilis, Tuberculosis, Typhoid Fever, Scarlet Fever, Influenza, Measles and Variola. It has been definitely demonstrated that the streptococcus, gonococcus, staphylococcus, meningococcus, pneumococcus, tubercle bacillus and spirochaeta are causes of joint inflammation, as the germs have been isolated from involved joints, cultured and injected into animals, producing definite joint lesions.

The recent work of Rosenow, of Chicago, is very interesting. He has isolated from involved joints and tonsils a strain of streptococcus, intermediate in virulence between the streptococcus viridans and the pneumococcus, which he has injected into animals and produced both the joint and cardiac lesions typical of "Acute Rheumatic Fever."

There is a large group of cases whose cause has not been definitely demonstrated. But despite the absence of demonstrated bacterial causation the local process in the joints, and the systemic effects of slight fever, leucocytosis, secondary anemia and lymphatic enlargement, together with slight foci of local infection elsewhere, make the assumption of a continuous or recurring bacteremia of low grade seem possible and altogether plausible. In many of these cases, the observers who have searched diligently for a source of infection somewhere in the body have often found it, and removing it, have cured the patient. The chief atria of infection are the tonsils, alveola processes, accessory

sinuses, urethra and prostate. Some observers have accused the gastro-intestinal tract and gall bladder.

Dr. G. W. Crile reports a number of cases of joint disease due to a streptococcic infection in other parts of the body and occasionally from acute abdominal infection.

Dr. Charles F. Painter reports having seen a number of cases in which arthritic symptoms were relieved with such promptness after treatment of the tonsils and teeth that he is convinced they were infections from that source.

Dr. Roswell Park thought that joint disease due to infections in other parts of the body, especially the oro-pharyngeal cavity, a subject much neglected, but certainly existing to a great extent.

Dr. A. H. Freiberg has frequently succeeded in determining an atrium of infection, the removal of which cleared up cases of arthritis. The most notable examples have been in connection with the genito-urinary tract.

Dr. C. Stewart Wright, reports a number of cases of joint disease which proved to be due to infection from the tonsils and teeth, and he concluded that they are the most frequent source of infection. He believes that all chronic joint diseases may be due to some disease or focus of infection elsewhere in the body.

Dr. Billings (Chicago), thinks that in all joint involvement, we should look at the tonsils first as the primary focus. If not found in the tonsils, then search for it in the teeth, accessory sinuses, pelvic organs, gall bladder and appendix. If not found in any of these locations, the tonsils should be removed, even though the history is negative to attacks of tonsillitis.

Dr. John B. Murphy fully concurs with the general consensus of opinion that joint diseases are often due to infection from other parts of the body, and reports a number of cases due to such causes, upon which he has operated for ankylosis.

*Trophic Arthritis.*—This is the Charcot joint of *Tabes*—a painless disintegration of the joint structures, resulting in deformity and probably due to a trophic nerve influence. Recently, however, it has been stated that this is a syphilitic infection. Trophic joint changes occasionally occur also in some cases of Myelitis, and in a form called the Marie Pneu-mogenic Osteo-Arthropathy.

*Metabolic Arthritis.*—Gout is the only instance of this type of arthritis. Urate deposits are found in the ligaments about the smaller joints, especially in the toes. This is thought to be due to a faulty metabolism, the exact nature of which is not understood.

*Pathology.*—The structures involved in the inflammation are the synovial membrane, ligaments, cartilages and bone—in fact, all the anatomical factors of the joint. Whether the cause be traumatic, infectious or trophic, the pathology is practically the same. This varies from a simple synovitis to an ankylosis, or complete destruction of the joint.

The synovial structures were formerly thought to be primarily affected in many joint troubles, but now the bone is admitted to be the structure in which the infection begins. Evulsion of intrinsic ligaments, such as the crucial ligaments, may give rise to a whole train of joint complications. The extrinsic ligaments are frequently the seat of peri-arthritis inflammation, causing effusion into the joint. The cartilages are probably rarely the starting point of joint troubles, except when they suffer displacement as in the case of the menisci. All other cartilaginous changes are secondary. To the bone, therefore, that formerly least suspected of joint structures, we must look for the starting point of most joint lesions. All other changes, synovial, ligamentous and cartilaginous, can be explained by structural changes in the bone. In the obscure traumatism of the articular extremities of the bone, we shall find an explanation of many subsequent joint complications; and in infectious osteo-mye-

litis of the epiphyses, we shall find the starting point of many cases of deforming arthritis.

First comes an effusion into the joint followed by a deposition of fibrin, which on opening the joint, may be peeled from the inner surface of the synovial membrane. This organized fibrin, together with a fold in the synovial membrane, may form villous projections into the joint cavity, to which pathological condition the name "Villous Arthritis" has been given. There may be a thickening of the soft structures and an hypertrophy of the ends of the bones, to which condition the name "Hypertrophic Arthritis" has been given. When the bony deposits are on the small joints they are called "Heberden's Nodes;" if in the hip, "Morbus Coxae Senilis"; if in the spine, accompanied by ankylosis, "Spondylitis Deformans."

On the other hand atrophic changes are noted and the cases called "Atrophic Arthritis." "Arthritis Deformans" is a general term used to include all these types of deforming arthritis, though some consider this a clinical entity.

Although the atrophic and hypertrophic forms of arthritis are rather distinct clinically, they do not represent a distinct etiology. Nichols and Richardson, in the *Journal of Medical Research* (1909), have this to say: "It being a general law of pathology, that the same agent may cause either proliferation or degeneration (in accordance with concentration, tissue nutrition or other factors), it follows that these two pathological groups do not correspond to two different sets of etiological factors or to two different diseases; but merely represent different effects from similar causes, or similar effects from different causes."

*Symptomatology.*—Pathological identity implies identity of symptoms and physical signs. The symptoms and physical signs of all joint troubles are practically the same, regardless of cause. The joint is swollen, local temperature increased, more or less painful and limited in motion. Muscular atrophy and even atrophy of the joint structures may

be present, causing deformity, the joint usually being fixed. On the other hand, the deformity may be due to an hypertrophy of these structures. Crepitus may be or may not be present. Constitutional symptoms—fever, rapid pulse, nausea, vomiting, loss of appetite, etc., may be present.

*Diagnosis.*—In spite of all the clinical work that has been done on joints, the various diseases causing an infectious arthritis cannot be differentiated by their joint manifestations. If the patient were covered with a sheet, exposing the affected joint only, and if a history were denied us, we could not make a diagnosis of the cause even with a good skiagram of the joint. In other words, the clinical picture may be the same in syphilitic, gonorrheal, typhoid, tuberculous, traumatic and hemorrhagic arthritis.

How then can a diagnosis be made? “Unless the offending organism can be demonstrated from the joint, we can arrive at a diagnosis only by considering circumstances outside of the joint and by weighing probabilities” (Ely-Denver).

A thorough personal and family history should be taken. A failure to secure a proper history is responsible for many errors of diagnosis and failures to cure.

A skiagram should be taken of every joint as this will usually show fractures and any degenerative process in the bony structure of the joint.

The Wassermann Reaction, Gonorrheal Fixation test, and Tuberculin in children, may clear up many cases.

A thorough routine examination of the patient, searching for the atrium of infection, cannot be emphasized too much. Special attention should be paid to the teeth, tonsils, accessory air sinuses, urethra and prostate, as these localities have already been found guilty in many joint lesions.

Finally, we should not forget the great importance of trauma, both as a predisposing and an exciting cause of joint affections.

*Treatment.*—The treatment depends upon the cause. If the atrium can be found (in the tonsils, teeth, sinuses, urethra, prostate, pelvic organs or bowels), this should be removed, as many of these cases will clear up by this treatment alone. If the germ can be isolated from the joint or any focal point, autogenous vaccines are often beneficial. Even the streptococcic and the gonococcic stock vaccines will be found helpful in some cases. If the infection be syphilitic, the general treatment of this disease by mercury and iodides and salvarsan is indicated. In tubercular joints, especially in children, tuberculin may be beneficial in a few cases.

In most cases of joint involvement there is a rapid decline of the general health. This should be corrected as far as possible by regulating the excretions, stimulating the appetite, giving plenty of nourishing food, and placing the patient in as pleasant and encouraging surroundings as possible. General tonics are often indicated, and general as well as local anodynes may have to be given.

*Local Treatment.*—This is practically the same in all joint lesions, regardless of cause. It consists of immobilization, extension (separating the articular surfaces of the bone to prevent destruction of the joint structures and ankylosis); aspiration, if there be much effusion into the joint, and the injection of substances that excite a local leucocytosis (Murphy thinks formalin 2% in glycerine is the best). I wish to emphasize the importance of immobilization or rest to the joint. This alone would cure practically every case, whether of infections or traumatic origin, if persisted in for a sufficient length of time. Prolonged immobilization alone is apt to cause ankylosis, which can be prevented by extension. Murphy's brilliant work on arthroplasty needs no comment. Yet he says: "Joints must not be permitted to deform in the beginning and then we shall not need to operate later to correct deformities."

## DIGESTION AND NUTRITION IN THE AGED.

BY W. T. MARRS, M.D., PEORIA HEIGHTS, ILL.

The strongest instinct with which we enter this world is that which leads to self-preservation by the nutritive process. The infant requires little instruction in the art of eating, and stoking the body with nutritional fuel is about the last thing he is ready to part with as an old man. As a rule people eat too much while traveling toward life's Pacific slope. The majority of elderly people eat well, while not a few eat excessively, and the funny thing about it is that they usually pride themselves on their ability to get away with food. But the ability to eat well, and even to digest reasonably well, is not synonymous with the best nutritional conservatism and seldom augurs for healthy green old age.

After forty or fifty metabolism is on the down-grade, cellular deterioration is setting in, and the human house is beginning slowly to crumble. The vascular system is tightening up a little, renal elimination of toxins is not so good, the skin and other emunctories are dulled in action. Too often mastication is imperfect on account of bad teeth or improperly fitting false teeth. The teeth, gums and buccal cavities of old people are so often sadly neglected, in consequence of which pyorrhea develops and a great deal of putrescent matter enters the stomach there to act as a slow poison.

The ingestion of too much food, especially that which is bulky in character and hard to digest, favors a dilatation of the stomach by reason of a stretching of the muscular coat, and food remnants remain over-time at this way station, setting up fermentation with a train of unpleasant symptoms. Sometimes there is a hypersecretion of hydrochloric acid, but oftener a fermentation due to other acids, as lactic, acetic, fatty, etc.

The organs of digestion and assimilation may apparently take care of food in quantity beyond actual physiological

needs, but often there comes a reaction in disease of the blood vessels, kidneys, liver or other vital organs and perhaps the piling up of fatty tissue where it will do the most harm. The stomach itself is slow to wrath and will not complain until compelled to do so; therefore it is often imposed on.

No, we do not require so much food after forty or fifty, and at sixty and seventy we must eat sparingly if we would insure health and greater longevity. In old age the diet should be at least three-fourths milk, fruits and cereals and not over one-fourth animal matter. Insufficient kidney action calls for a diet of buttermilk. A recent census brings out the fact that the number of centenarians is greater in countries where the sour milk diet is popular, and fewer in meat-eating countries. The United States is accredited with forty-six centenarians and Germany seventy; while little Bulgaria and Roumania each have over 3,000 who have passed the hundredth milestone.

One of the best auxiliary aids to the digestion in old folks is correct hygiene, especially that of the mouth. No one can long expect to remain sound and healthy with bad teeth and a foul mouth. Also great stress should be placed on the matter of water drinking. It is seldom indeed that too much water is taken; too often not enough. The ingestion of water and fruit in abundance successfully combats constipation.

Digestion in many old people is aided by lying down for an hour after each meal. If the abdominal muscles are loose and flabby with a suggestion of gastropptosis or enteropptosis, much relief may be obtained by wearing a suitable belt or band.

Hepatic stimulation medicinally is often indicated in the aged. For this purpose calomel is the most useful drug at our command and if constipation be marked cascara sagrada should also be employed. In case of hemorrhoids sulphur and cream of tartar tablets freely administered are



of value and seem to help the piles as well as moving the bowels with soft, pultaceous stools.

Often hearty old eaters have an accumulation of stone-like scybalous matter in the bowels and this is an indication for castor oil and in big doses; often two to four ounces with perhaps several repeaters. For minor digestive derangements, gaseous eructations, etc., rhubarb and soda tablets are serviceable. In many cases *peptenzyme* aids digestion and corrects secretions, as it contains the nucleoenzymes of all the digestive glands including the peptic and pancreatic. Strychnine may serve a good purpose when there is lack of tone in the muscular structures of the bowels and stomach. Opiate drugs should be employed with the greatest care in the aged, for the secretions are drying up fast enough without adventitious aid and because of the readiness of old folks to become annexed to narcotic habits.

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### **Editorial.**

#### **"THE NATION'S GREATEST NEED."**

At the annual meeting held in Washington City, a little more than thirty years ago, when it was the custom of the Chairman of the various sections of the American Medical Association to deliver an address before the General Sessions of the Association, a Chairman of the Section on State Medicine I devoted fully one-half of the forty minutes allotted me to a consideration of "*A National Department of Public Health*," with a Secretary of Public Health, a member of the Cabinet of the President of the United States, appointed as other Cabinet Officers, with similar rank, authority, etc., to be organized as are the other Departments of our National Government. This address was published in *The Journal of the American Medical Association*, July 5, 1884, Vol. III., No. 1, and reprinted therefrom in this journal, August, 1884, Vol. VI., No. 8. Subsequent thereto, from time to time the views then enunciated have been earnestly advocated in the pages of *The Southern Practitioner*, editorially and otherwise; and with full recognition of the vast amount of beneficent results that have accrued by means of the Marine Hospital Service, now designated as the United States Public Health Service, whether under the control and

management of Drs. Jno. B. Hamilton, Walter Wyman or the present very able and efficient Surgeon-General, *our Nation's health demands* that this bureau of the Treasury Department, this "Bureau of Public Health be enlarged into a department with a member of the President's Cabinet at its head."

The session of Congress just closed has done some very essential and efficient work, but the new session now before us can have no more important subject for consideration and favorable action than this greatest need of our nation, therefore, we must heartily endorse and commend the editorial in the September issue of *The Southern Medical Journal*, which we take great pleasure now in placing before our readers in full under its heading as follows:

"SURGEON GENERAL GORGAS AND THE NATION'S GREATEST NEED."

"His work as Chief Sanitarian of the Canal Zone having been completed, Surgeon General Gorgas has returned to Washington to assume his duties as Chief of the Medical Corps of the United States Army, to which he was recently appointed by President Wilson. No conquering hero ever returned to his native country with a record of greater achievement and none ever deserved greater encomium for his services to mankind than Surgeon General Gorgas. The fame and vain conquests of Alexander the Great, Caesar and Napoleon, and other great conquerors in history, were accomplished at the cost of carrying death and desolation over continents, making millions mourn; while the victories of Surgeon General Gorgas, and those who followed him in the campaign against tropical diseases in the 'death holes' of Panama saved thousands of human lives, made a health paradise of tropical jungles, and, as President Taft said, 'rendered possible the completion of the Panama Canal, the greatest industrial undertaking in the history of the world.'

"The greatest triumphs of medicine in the knowledge of men have been the elimination of yellow fever and the practical eradication of malaria from Havana and the Canal Zone, thus proving that those life-destroying and energy-sapping diseases, the most dreaded enemies to man in tropical and subtropical countries, can and will be conquered everywhere. These triumphs mean that millions will live in health, happiness and unbounded prosperity in regions that are now sparsely inhabited and undeveloped because of the presence of these tropical diseases. Nothing in history is more inspiring than Gorgas' conquest over disease, and the good that he has done will rest like a benediction upon the inhabitants of temperate and tropical countries throughout the world, when wars and warriors and 'the fearful ruin they have wrought' have been forgotten. What a fine theme for the thunder roll of a Homer, this splendid genius of the American Army, with his band of sanitarians, routing the hosts of Death in their tropical strong-

holds. It towers above the heroism of the lofty plumed Hector or the valor of faithful Achilles.

"That Surgeon General Gorgas' work is appreciated in foreign countries—as it is by his own people—is shown by the tribute paid him by the Public Orator of Oxford University, England, who, last March, in presenting him for the honorary degree of Doctor of Science, said:

"Those are most to be honored by us who have increased knowledge and thereby promoted the welfare of the world. Such are many students of medicine; it is a fine thing to have scientific knowledge which can cure disease; but theirs is still a finer, if more dangerous, task who can extirpate the causes from which disease springs. It is such men who destroy the seeds of death which are bred in swamps, risking their health and even their lives to serve their fellows. These heroes are a modern realization of the legend of Heracles, the cleanser of foul places and the enemy of evil beasts.

"The eminent American whom you see today has, like many of his countrymen, fought in the forefront of the battle. His achievements are too numerous for me to relate in detail. Suffice it to say that it is he who cleaned Havana; it is he who put fever and pestilence to flight in the Isthmus of Panama, and made possible the long-thwarted construction of the great inter-oceanic waterway; it is he who has recently improved the sanitary condition of the South African mines. He purified the foul air; he waged war on the myriad swarms of death disseminating mosquitoes. The result has been an amelioration of the conditions of human life in plague-haunted districts, where once "in silent fear the helpless healer stood," and it is now possible to live in comfort and to work with advantage. There can be no better example of those "Whose skill hath served the human lot to raise, and won a name that endless ages praise."\*

"The Acting Vice Chancellor of Oxford in admitting Surgeon General Gorgas to the degree of Doctor of Science approached the epic in expression when he said:

"Pre-eminently distinguished, sagacious, health-bringing, the modern Machaon of the American Army, whom indeed I should wish to salute not only in Latin prose, but also in Greek verse, thus:

"Hail, Router of the Plague of Flies! Hail, Isthmian conqueror true!

Gorgas, to that wise goddess dear, the Gorgon Death who slew.'\*\*\*

"Perhaps the highest compliment ever paid a sanitarian by a foreign country was when the English called upon Colonel Gorgas to in-

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\**Jour. of the A. M. A.*, June 13, 1914, page 1864.

\*\**Jour. of the A. M. A.*, June 13, 1914, page 1865.

investigate sanitary conditions in the Transvaal and in Rhodesia. His recommendations to the Transvaal Chamber of Mines for improving the sanitary conditions of the employes of the mines on the Rand, as published in the *Journal of the American Medical Association*, June 13, 1914, if carried out, as they were on the Canal Zone, will reduce the number of deaths from pneumonia alone by thousands each year, and his visit will thus prove a blessing to the inhabitants of South Africa.

"The report of Surgeon General Gorgas' investigations concerning the causes of malaria and black water fever in Rhodesia, with his recommendations regarding methods to employ in stamping out those diseases in that locality, which appears as the leading article in this number of the *Journal*, is probably the ablest, the most authoritative, and therefore, the most important, discussion on the prevention of malaria ever published. Malarial prevention is the same everywhere, and the measures he advises for Rhodesia will apply to any locality in which malaria is prevalent. Why should they not be put into practical operation in the malarial districts of the United States, as well as on the Canal Zone and in Rhodesia? Why should we not practice among our own people the methods for preventing all other diseases that have given such brilliant results in our territorial possessions and in other countries? Surely there is need for improvement in the health conditions of the United States.

"In the year 1912, 838,251 deaths from all causes were reported in the registration area, which comprises only 63.2 of the total population of the United States. There were then approximately 1,400,000 persons who died in our country in the year 1912. It is estimated that at least one-third of them, or more than 450,000 died needlessly of diseases that could and should have been prevented. Pneumonia alone caused the death of 79,917 in the registration area and at the same ratio for the entire United States approximately 125,000 died of this disease, which the average person does not regard as preventable, and which our government has done nothing to prevent, yet on the Canal Zone among the negro employes the death rate from pneumonia was reduced from 18.74 per thousand in 1906 to 1.30 in 1912.\* Of course, it is not possible to control the housing and other environment of the inhabitants of the United States as was done with the laborers working on the Panama Canal, and we could not hope to reduce the death rate from pneumonia and other diseases as low as reported by Surgeon General Gorgas, but hundreds of thousands of lives of good American citizens could be saved if we even approximated the sanitary measures employed in the Canal Zone.

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\*Gorgas: *Jour. A. M. A.*, June 13, 1914, page 1856.

"It is estimated that several million people in the United States have malaria every year, and the annual economic loss is considered to be not less than \$100,000,000 from that disease. Yet if the same practical methods of malarial prevention, which were successfully carried into effect and continued for five years in our own country, malaria would become a rare disease in the United States.

"The toll of tuberculosis in our country is now approximately 140,000 lives annually, though in the past twenty years the campaign of education has reduced the tuberculosis death rate from 200 to 150 per hundred thousand of population. Two hundred thousand die annually from diseases of the heart and kidneys, when according to the Human Factor, published by the Equitable Life Insurance Company, 40 per cent of those deaths could have been prevented. The death rates from diseases of the heart and kidneys are increasing at an alarming rate, and yet practically nothing has been done for their prevention. Cancer is increasing, and so are many other diseases.

"The figures and facts presented above are appalling. They tell the tale of ignorance upon the part of our people and neglect upon the part of the government. They also prove that the Nation's greatest need is an adequate department of health, with an appropriation sufficient to provide experts, epidemiologists and trained sanitarians to aid the health authorities in the various states and cities in their campaigns against disease.

"The present United States Public Health Service, under the wise leadership of Surgeon Generals Wyman and Blue, has made a wonderful record in quarantine service, and when called upon to take charge of epidemics in various cities it has shown remarkable efficiency. Indeed the annals of medicine record no more brilliant achievements than the eradication of plague from San Francisco by Blue, and yellow fever from New Orleans by White. The work of Stiles on hookworm, Anderson and Rosenau on anaphylaxis, Lumsden on typhoid fever, Lavender on pellagra, Van Ezdorf and Carter on malaria, Rucker, Creel and Grubbs on plague, and Young, Goldberger, Trask and other surgeons in various phases of public health work has reflected great credit upon the United States Public Health Service; but ten men are needed in public health work where there is now one employed, and the Bureau of Public Health should be enlarged into a department with a member of the President's Cabinet at its head.

"The Army and Navy Departments protect life and property in time of war. Is it not just as important to protect life and property during peace? The Department of Health should be on the same basis as the Departments of the Army and Navy. Indeed the medical corps of the Army and Navy should be correlated with the Department of Health during times of peace. It might be well to go further

and train selected men in each regiment as sanitary inspectors to be used by the various cities and states, upon request, as in times of an epidemic. New Orleans is now spending \$50,000 per month in salaries for plague prevention, when the work could be better done at probably one-fifth the cost if the United States Marines were trained in sanitary work, and could be called upon for that service. Is not the protection of the health and lives of a people of equal importance as the safeguarding of labor and commerce, and should there not be a Department of Health with a Secretary of Health?

"The American Medical Association, the Southern Medical Association, and practically every state, county and city medical society in the entire United States have endorsed legislation for the creation of a Department of Public Health with a cabinet officer at its head. Efforts were made to enact such legislation during the administration of Presidents Roosevelt and Taft and though success seemed assured, the bills were defeated. The next session of Congress seems the most propitious time to present this most important measure to our national legislators. Never in the history of our country has so much advanced legislation for the good of the entire people been made into laws as in the past year; and the democratic party, under the leadership of the most accomplished statesman that ever occupied the presidential chair, will not fail in its opportunity to meet the Nation's greatest need and create a Department of Health. During the interim of the sessions of Congress physicians should make the opportunity to inform their friends among the Congressmen and Senators of the needs for such legislation. If the medical profession will stand united on this question there can be no doubt but that before another year Congress will have enacted the greatest possible piece of constructive legislation for the good of the whole people by providing for an adequate Department of Health.

"Great epochs develop great men to lead the great movements for the betterment of manhood. The present epoch in the world's achievements will go down in history as the dawn of the science of sanitation and in this movement our country leads all other nations, and she has produced the greatest leader. The United States Government has sent through Surgeon General Gorgas the gospel of health and sanitation into Cuba, the Canal Zone and South Africa, and will she not call upon the genius she has developed to lead the fight against the hosts of Death that have invaded our own country and that every year destroy more lives than have been lost in all the wars in our history.

"Our Government owes it to Gorgas to create a position of greater honor than has ever been filled by a sanitarian, or by any other member of the medical corps of the United States Army. After Dewey's return from his victories in Manila Bay a grateful nation gave him

such a greeting as has never been accorded any other man in our history, and Congress voted to make him a full admiral, the highest position in the Navy. Are not the achievements of Gorgas of greater service to our country and more far reaching in their effect in increasing national prosperity and happiness than any naval victory ever won? If so, Congress should show the gratitude of the people whom it represents by first making Gorgas a major-general in the United States Army that he may retire with that rank. Then it should perform the greatest possible service for the Nation by creating a Department of Health, and the sincere desire to appoint the man who can give the best service in the position may be depended upon to lead President Wilson, who has proved his wisdom in every act of his administration, to select Gorgas as Secretary of Health in order that the Nation's greatest need,, as well as its greatest opportunity, may be fulfilled."

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#### A NOTABLE WORK ON BIOLOGICAL THERAPEUTICS.

A book of uncommon interest and value to physicians has just been issued from the press of Parke, Davis & Co. It is a new "*Manual of Biological Therapeutics*," receipt of a copy of which is hereby acknowledged by the editor of this journal. The book is handsomely printed in large, clear type, on heavy enameled paper, and bound in cloth. It contains 174 pages of text, upward of thirty full-page plates in color, and a number of half-tone illustrations in black and white, together with a comprehensive index. As its title suggests, it is a concise and practical treatise on biological therapeutics, and so replete with useful information that no practitioner should miss the opportunity to secure a copy, especially in view of the fact that the publishers announce that the entire edition is to be distributed gratuitously to members of the medical profession, on individual application.

Something of the scope and value of the work may be inferred from this incomplete list of the subjects treated: Biology; Bacteria; Immunity; The Preparation and Uses of Sera; Antidiphtheric Serum; Concentrated Diphtheria Antitoxin; Allergic Reactions; Antitetanic Serum and Globulins; Antigonococcic Serum; Antimeningitic Serum; Antistreptococcic Serum; Bacterial Vaccines or Bacterins; The Opsonic Index and description of method of taking it; When Serums should be used and when Bacterial Vaccines are to be preferred; The various Bacterins and their Indications; Smallpox Vaccine; Pasteur Antirabic Vaccine; The Diagnosis of Typhoid Fever; The Agglutination Test without a Microscope; The Agglutometer; Ehrlich's Diazo-Reaction in Typhoid Fever; Gonococcus Antigen; The Wassermann Reaction; Coley's Mixture; Coagulose or Hemostatic Ferment; *Bacillus Lactis Bulgaricus*; *Phylacogens*, their Preparation and Mode of Use; Mixed

Infection Phylacogen; Pneumonia Phylacogen; Gonorrhea Phylacogen; Erysipelas Phylacogen; Rheumatism Phylacogen; Typhoid Phylacogen; Tuberculins in Diagnosis and Treatment; Organotherapy; Thyreoidectin and Thyroprotein; Thyroid and Thymus Glands, Adrenalin and Pituitrin; Corpora Lutea; The Biological Farm and the Research Laboratory.

To our physician friends we suggest the propriety of writing at once for a copy of this "*Manual of Biological Therapeutics*," addressing the request to Parke, Davis & Co., at their home office in Detroit, Michigan. It will not be amiss to mention this journal in writing.

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#### A RIDICULOUS SUIT AGAINST THE SOUTHERN CALIFORNIA PRACTITIONER.

Our very talented confere, Dr. George E. Malsbary, in the March issue of the excellent monthly medical journal above mentioned, published an article contributed by Dr. H. O. Hyatt, of Kinston, N. C., under the title of "*What Fools These Mortals Be*," and in consequence thereof has been subjected to what that grand old patriarch of the Tennessee Bench and Bar, Judge Joseph Guild, in his day would have designated as "the tedious meandering of a long-drawn out and wearisome law suit."

Dr. Hyatt is a regular practitioner of medicine of mature age, born in 1848, receiving his degree of M.D. from the University of Pennsylvania nearly a half century ago—1868; a courteous gentleman, an honorable member of the A. M. A., ex-president of his County Medical Society, also of the N. C. State Medical Society and the Eastern District Medical Society, as Dr. Malsbury says in the last issue of his journal, "ought to be permitted to write in the medical press upon the suppression of the social evil and prevention of venereal diseases without subjecting the editor to a suit that may entail a fine of five thousand dollars, imprisonment for five years and the suppression of his journal."

To which we say Amen! Surely, yes, indeed.

Having carefully read the article, we unhesitatingly say that in elucidating his argument, Dr. Hyatt has made use of an incident occurring in a city street, the brutal shooting of a dog by a policeman, and the expressions used should no more be debarred from a medical publication than numerous paragraphs and even pages that appear in the standard works on physiology. While a rational, judicious censorship of the secular press is not to be condemned or criticised, but such an inane, ridiculous effort at cramping any reasonable expressions in a scientific publication, may well cause us to exclaim: "What Fools These Mortals Be!"



**SANDER'S EUCALYPTOL IN PULMONARY AFFECTIONS:**—In all bronchial troubles it is essential that whenever eucalytus is used it should be free from irritant effects, and Sander's preparation is prepared specially with this end in view. To obtain the best results from its use a few distinctive rules have to be observed. It should not be given internally in acute bronchitis, for the expectoration is diminished by it. In the early stage of acute bronchitis the greatest benefit will accrue from a foment to the chest on which 20 to 30 drops of Sander's Eucalyptol are sprinkled. The Eucalyptol is inhaled together with the steam. In the subacute broncho-pneumonias of children, 30 drops of Sander's Eucalyptol should be added to a tablespoonful of hot olive oil and the whole chest thoroughly rubbed. The friction induces the child to fill the collapsed lung tissue and to inhale the Eucalyptol.

Its internal administration should be reserved for the chronic bronchites with profuse expectoration. It should then be given in 5 drop doses either in a tablespoonful of water, or, when *ol. morrhue* is indicated, it can be added in the proportion of 5 drops to a drachm of cod liver oil, the taste of which it disguises very effectively. Whenever the discharge is purulent or foetid (bronchiectasis and foetid bronchitis), or when an antispasmodic and antiseptic effect is desired, as in emphysema and asthma the antiseptic inhalation below will give great relief.

In all tuberculous cases Sander's Eucalyptol should not only be given internally with cod liver oil, but the following inhalation, especially when used continuously, will change the clinical picture often very quickly and decisively: *R. Acidi Carbolica*, 1 dr.; *Tr. Iodi*, 1 dr.; Sander's Eucalyptol, 2 dr.; *Spir Chloroform*, q.s. 1 oz.; inhale 15 drops frequently from a Robinson's inhaler.

Sander's Eucalyptol, unlike other eucalyptus products, is non-irritating. It was introduced to the profession in 1875, and has the endorsement of men like Prof. Dr. Hazard, the late Lord Lister, Prof. Dr. Mosler, and other eminent physicians of the United States and abroad, who have used it in the various affections for which it is indicated, and it has, as Prof. Dr. Mosler states: "Up till now always rendered me the most excellent services."

**A SAFE AND RELIABLE ANALGESIC:**—It is difficult to find an efficient remedy for the relief of pain which at the same time produces no narcotic effects with their distressing and oftentimes disastrous sequelae. For this reason the opiates, effective as they may be in soothing pain, are usually contraindicated. A habit may be induced which in many instances it is impossible to break. Phenalgin however controls pain with remarkable efficacy and because of its composition is free from all danger of causing a drug habit. Since it possesses the therapeutic

remedies of the narcotising agents without their drawbacks it has a wide field of use. Phenalgin is especially indicated for the relief of dysmenorrhea, from which so many women, from the sedentary nature of their employment suffer nowadays. When these periodical pains recur, the victim is apt to fly to a narcotic to gain a respite, and the consequence too often is that a drug habit is formed. Through the use of phenalgin, however, the practitioner can promptly control painful menstruation with gratifying avoidance of all tendencies to drug habituation. Equal confidence may be placed in the use of phenalgin in other conditions. Thus in the treatment of alcoholism, phenalgin may be relied on to relieve the unpleasant symptoms and to restore the victim to normal condition in a natural manner. In fact in all disorders or diseases in which pain is a prominent symptom, such as cephalalgia, gastro-intestinal complaints, la grippe, rheumatism, lumbago, malaria, neuralgia, neurasthenia and gout, phenalgin affords prompt and satisfactory relief, without locking up the secretions or causing constipation.

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**PLASMODIAL ANEMIA:**—In spite of the modern theory of the etiology of malaria and malarial affections (mosquito-borne infection) this plasmodic disease continues to be rife in certain sections of the country and bids fair to be, like "the poor," "always with us."

Every physician of experience appreciates the principles which should guide him in the treatment of the various acute manifestations of paludal poisoning, *i. e.*, the destruction of the plasmodial hosts which have invaded the blood and which, if not eliminated, consume and destroy the red cells, the vital element of the circulating fluid.

When this purpose has once been accomplished the patient is but partly cured; the damage done to the red corpuscles must be repaired and the vitality of the blood restored, if re-infection is to be avoided. If there is any one condition in which direct hematonic or blood-building therapy is positively indicated, it is in Post-Malarial Anemia. As soon as the febrile period has passed, iron, in some form, should be given in full dosage. Pepto-Mangan (Gude) constitutes the ideal method of administering this essential blood-building agent in this as well as in any anemic condition. Both the iron and manganese in Pepto-Mangan are in organic combination with peptones and are therefore easily and promptly absorbed and assimilated without causing digestive derangement or producing constipation.

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**CORPORA LUTEA NOW AVAILABLE:**—Physicians who have been desirous of prescribing Corpora Lutea, but have been unable to do so through inability of their druggists to supply it, will be glad to know that the manufacturers, Messrs. Parke, Davis & Co., have taken steps

to secure sufficient quantities of the glands in future to meet the probable demands of the medical profession.

As is known, perhaps, to most physicians, Corpora Lutea is largely used to control the symptoms following the removal of the ovaries, especially in young women, and to relieve the nervous disturbances attending the natural menopause. Reports have appeared in its successful employment in the treatment of amenorrhea, dysmenorrhea, chlorosis and menorrhagia. It is supplied in desiccated form, in capsules of five grains each, equivalent to about thirty grains of fresh corpus luteum. Only the yellow granular material from fresh ovaries is used in its preparation, the remainder of the gland being discarded because of its lack of therapeutic value.

While comparatively a new product, there is sufficient evidence at hand to warrant the opinion of one writer who expresses the belief that "in Corpora Lutea we have a preparation that will be a blessing to womankind."

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THE AMERICAN JOURNAL OF SURGERY begins with the October issue, and quarterly thereafter, will publish a 32 page supplement devoted exclusively to Anesthesia and Analgesia.

This supplement will be a complete journal within a journal, containing editorials, contributed articles and communications, abstracts, transactions of Societies and book reviews.

The supplement has been adopted as the official organ of the American Association of Anesthetists and the Scottish Society of Anesthetists and it will also publish the transactions of other like societies.

The editor of this supplement is Dr. F. Hoeffler McMechan of Cincinnati, one of the founders of the American Association of Anesthetists and a charter member of the New York Society of Anesthetists. He will be assisted by a staff of well known specialists in Anesthesia, among whom we would mention: Dr. James T. Gwathmey, New York; Dr. Willis D. Gatch, Indianapolis, Ind.; Dr. William Harper De Ford, Des Moines, Ia.; Dr. Charles K. Teter, Cleveland, O.; Dr. E. I. McKesson, Toledo, O.; Dr. Isabella C. Herb, Chicago, Ills., and Yandel Henderson of Yale University.

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PANOPEPTON as a food for the sick, convalescent, invalid, etc., meets every scientific requirement as to content and form of nutritive constituents. That it meets every practical requirement is under constant demonstration in clinical experience. Containing in an instantly available form the entire nutritive substance of beef and wheat (the whole wheat grain) *Panopepton* affords the stimulus that follows perfect digestion and supplies the organism with substantial material for repair and nutrition.

**SOUTHERN HEALTH EXHIBITION:**—In connection with the annual meeting of the American Public Health Association to be held in Jacksonville, Fla., November 30 to December 5, there will be held a Southern Health Exhibition from November 27 to December 6. Plans have been under way for the last six months for this exhibition and a large amount of material has been promised. The exhibition will include material covering a wide range of subjects pertaining to health conservation and will comprise the work of the state and municipal boards of health and private and semi-public organizations throughout the entire South. Such phases of health conservation work as rural sanitation, typhoid fever, hookworm, pellagra, malaria, school medical inspection, infant and child hygiene, midwifery, vital statistics, milk and water supplies, food and drug inspection, habit-forming drugs, insect carriage of disease, fly eradication, rat extermination, plague prevention and laboratory work, together with modern sanitary apparatus will be covered by this exhibition.



**UTERO-OVARIAN NEUROSES:**—The nervous attacks and minor attacks of pain which arise from functional disturbance in the utero-ovarian tract, furnish a splendid field for Pasadyne (Daniel) and show in a gratifying fashion the marked usefulness of this product in nervous attacks and even as a mild anodyne. A particularly value point about Pasadyne (Daniel) is its freedom from danger. As is well known, Pasadyne (Daniel) is the distinctive name for a pure concentrated tincture of *passiflora incarnata*. A sample bottle may be had by addressing the laboratory of John B. Daniel, 34 Wall St., Atlanta, Ga.

**"THE SO-CALLED RHEUMATIC DISEASES** are mainly symptomatic auto-intoxication manifestations, ether from the tonsils, stomach, intestines, urethra, prostate, rectum, kidneys, liver or involvement of the glandular system and post-infective diseases, especially Neisserian."

But no matter where the rheumatism may be located, there is no remedy which will relieve the condition more promptly and more thoroughly than Tongaline.

"THE CAUSE OF RHEUMATISM is as certain, as definite, and as well defined as that of malaria or syphilis. The cause of all forms of rheumatism that I have ever seen has been deficient elimination, principally manifested by the urinary solids falling to a point far below normal.

"All of the most valuable rheumatic remedies, those most prompt, reliable and uniform in their action, are active stimulants of elimination, and cause a decided increase in the solid matter carried off by the urine."

Tongaline, by its highly stimulating action on the liver, the bowels, the kidneys and the pores, is the "ideal eliminative" and has no equal in the treatment of rheumatism, neuralgia, grippe, gout, nervous headache, malaria, sciatica, lumbago, tonsillitis, heavy colds and excess of uric acid.

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SEXUAL NEUROSES:—Whilst it is true that in many instances a definitely existing lesion somewhere along the genito-urinary tract is the underlying cause of that distressing condition popularly described as sexual neurasthenia, yet in certain cases it is impossible of detection, or if detected its effects are too firmly fixed to make an immediately favorable response to the local treatment instituted. Wherefore, the need for a soothing agent such as Bromidia (Battle) becomes necessary. In cases of this character with marked nervous involvement Bromidia (Battle) is of the greatest service. It soothes the sexual irritability and enables the patient to rest and sleep well.

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CHILD BETTERMENT is a monthly publication issued by The Child Betterment Bureau, (inc.), 60 W. Washington St., Chicago, Ill., with G. Frank Lydston, M.D. C.C.L., Editor, and Contributing Editors, Geo. F. Butler, A.M., M.D., G. G. Burdick, M.D., and Lee Alex Stone, M.D. Price, ten cents per copy, or one dollar per annum. It is a magazine with a single purpose, conducted with exact knowledge, by men with whom that purpose is paramount. It is a publication for spreading information in its own field—a competent and efficient organ of education and instruction; and is a practical exponent of physical and mental health among children.

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GLYCO-THYMOLINE FOR COLDS:—At this season of the year the crop of "colds" becomes very numerous.

One of the first efforts of the physician aims at relieving the congestion of the nasal mucous membrane and bring some degree of comfort to his patient.

Glyco-Thymolne in a 25% solution used in connection with the K. & O. Nasal Douche, not only cleanses the nasal passages of the mucous secretions but also reduces the congestion by its exosmotic action, thereby giving the patient a degree of comfort that will be thoroughly appreciated.

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IN BRONCHIAL AFFECTIONS you will find *Firwein* a successful prescription. Give it a trial, Doctor, and you will not be disappointed.

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## Reviews and Book Notices

NERVOUS AND MENTAL DISEASES. By Joseph Darvin Nagel, M.D., Consulting Physician to the French Hospital of New York, Member New York Academy of Medicine, Honorary Member Societe Royal de Belgique, etc., Physician to St. Chrysostom's Dispensary. New (2nd) edition, revised and enlarged, 12mo, 293 pages, with 50 engravings and a colored plate. Cloth, \$1.00 *net*. (The Medical Epitome Series). Lea & Febiger, Publishers, Philadelphia and New York, 1914.

The author has mastered to an unusual degree the art of concise statement, with the result that a surprising amount of essential matter is presented in very full detail. In the process of condensation the tendency is naturally to omit matter which may be of substantial value to the student, but the volume under consideration is singularly free from such omission. The revision has been most complete. Several sections have been practically rewritten and substantially enlarged. Changes in classifications particularly of mental diseases, have brought the epitome into complete accord with the most advanced thought. The plan of presentation is so orderly as to render the vast amount of condensed information presented most readily assimilable. The illustrations are numerous and well chosen, showing characteristic clinical types and schematic presentations of nerve tracts and connections.

The undergraduate who masters this compact volume will find himself possessed of a thorough grasp of the fundamentals, while the busy practitioner will find in it a most useful aid to memory.

THE PRACTITIONER'S VISITING LIST FOR 1915. Four styles: weekly, monthly, perpetual, sixty-patient. Pocket size; substantially bound in leather with flap, pocket, etc.; \$1.25 net. Lea & Febiger, Publishers, Philadelphia and New York.

This is a practical convenience which, once possessed by the busy medical man, immediately becomes indispensable. It is a matter of common remark that most forms of pocket memoranda are admirably designed to further the immediate and permanent loss of the data it is desired to preserve. This, happily, is not the case with this carefully designed Visiting List and pocket consultant, which is the final evolution of 30 years' experience in meeting and anticipating the needs of the practicing physician.

It affords a simple and complete system for keeping the records of daily practice. In addition to the ruled pages for daily calls and their notes, general memoranda, addresses, cash account, etc., it contains specially arranged spaces for data desired for permanent record such as births, deaths, etc. The value of such records is best appreciated by the physician who has been suddenly confronted by the necessity of producing such data after the lapse of years and in the absence of an orderly system for its preservation.

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A DOCTOR'S VIEWPOINT, by John Bessner Huber, A.M., M.D., Editor *Dietetic and Hygienic Gazette*; Author of *Consumption and Civilization*; Fellow A. M. A. and N. Y. Academy of Medicine, etc. Cloth, 12mo. pp. 164, Gazette Publishing Co., 87 Nasau St., New York, N. Y., 1914.

In this little volume is presented in a very entertaining and instructive manner a practical physician's "viewpoint" of quite a number of our human relations and of our present day civilization; a considerable amount of the matter having favorably appeared in contributed articles to *The American Review of Reviews*, *Collier's Weekly*, *Harper's Weekly*, *N. Y. Evening Post*, *Scientific American*, *Lippincott's*, *The British Journal of Tuberculosis* and other journals. Quite a variety of subjects are tersely and lucidly con-

sidered, among which we may mention the following: "A Twentieth Century Epic," "The Cowardice of Brave Men," "Woman's Seven Ages," "Eugenics" "How Genius Manifests Itself," "Cupid in Psychology," "Killing and Conservation," "Psychic Research," "Mongrelized Races," Euthanasia," together with some dozen and a half other subjects, any of which will not only serve to pleasantly pass our unoccupied moments, but will also instruct as well as entertain.

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MOTHERHOOD. 8 vo., paper, pp. 30. E. S. Harris, M.D., Bridges Building, Independence, Mo., Author and Publisher.

This is an excellent and practical little bochure containing important and valuable instruction for those about to assume the responsibility and sacred duties of maternity. A sample copy will be sent you on receipt of ten cents. Twenty-five copies or more with your name on title page will be sent you for ten cents per copy, and will be of material service to those relying upon you for professional aid.

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## Selections

THE USE OF OIL OF CHENOPODIUM IN HOOKWORM DISEASE:—Among the inconveniences entailed by the European wars is the failure of the supplies of thymol, used so largely in the southern hookworm campaign. As a substitute for this drug, now almost unobtainable, American wormseed oil (*Oleum Chenopodii* U. S. P.) has been suggested.

As indicated by the name, wormseed oil has long had a reputation as an anthelmintic. The plant from which the oil is distilled grows "in waste places from New England to Florida and westward to California." It has, however, been cultivated particularly in Maryland, and the oil has been known as Baltimore oil, in contradistinction to the western oil, which is no longer much of a commercial factor. While the oil is almost wholly a Maryland product, it is said that the seed is harvested in considerable quantities in



Florida, where the plant is one of the most pestiferous of the weeds.

Renewed interest in the possibilities of American wormseed oil, especially against round worms, seems to date from the publications of Bruning, in 1906, who, with Gockel, Kober, Linke, Schmitz, Thelen, and others has investigated the pharmacology of the oil. The chemistry of oil of chenopodium has been studied in Germany by Wallach and others and in this country by Kremers and Nelson, of the Department of Agriculture.

Clinically, its value, especially for the treatment of round worms, was well established. In 1912, Schuffner and Vervoort presented to the Fifteenth International Congress on Hygiene and Demography a paper in which they sought to demonstrate the superior advantages of oil of chenopodium in the treatment of hookworm disease as compared with other vermifuges. These authors, in the course of eight months, had given oil of chenopodium in 1,457 cases. Giving eucalyptus oil a coefficient of 38, naphthol 68, and thymol 83, oil of chenopodium surpassed them all with a coefficient of 91.

Toxicologically, a search of the Index Catalogue and the Index Medicus revealed but twelve published cases of poisoning by wormseed oil in something over fifty years, the first having been published in 1852 and the last in 1903. Of these cases eight were fatal. The report of one of the fatal cases is cited by Wood, with the added comment: "It is plain that the wormseed was not the direct immediate cause of all these symptoms or of the fatal result." All of the reported cases, however, show a certain general similarity, indicating that the toxic action is exerted particularly upon the central nervous system. Salant, in a preliminary report of his studies on the pharmacology of this oil, notes the possibility of cumulative action, indicated by the fact that nontoxic doses, when repeated in a day or two, were fatal in the rabbit. In the reported cases of poisoning the dose appears to have been excessive and, in some

cases, repeated. Bruning asserts that when properly used this remedy does not cause any unpleasant secondary actions, an experience confirmed by that of subsequent workers.

It is to be noted that oil of chenopodium is a paralyzant, rather than a parasiticide. It narcotizes the parasite, which must then be got rid of by free purgation. Moreover, and here it differs radically from aspidium and thymol, it is probably best administered with castor oil. In the case of aspidium and thymol the coincident or subsequent use of any oil is to be avoided, because, their constituents being soluble in oils, they are thereby rendered more toxic to the human subject. With reference to chenopodium, which in itself appears to be constipating, the castor oil does not add to its toxicity, but offers a ready method of ridding the host both of the parasites and the drug.

Schuffner and Vervoort administered sixteen drops of oil of chenopodium with sugar every two hours for three doses. Two hours thereafter they gave a tablespoonful of castor oil with a teaspoonful of chloroform. Gockel gives the single dose as 8 to 16 drops, according to age—6 to 8 years, 8 drops; 9 to 10 years, 10 drops; 11 to 16 years, 12 drops; over 16 years, 12 to 16 drops. Should untoward symptoms arise, particularly inordinate sleepiness or depression, the chenopodium should be withdrawn at once, active purgation induced, and stimulation begun with strong, hot coffee by the mouth or by the rectum.

Owing to its increased vogue in continental medicine, the demand for this product has increased in the past few years. Schimmel reports that the acreage put to wormseed increased from about 90 acres in 1910 to perhaps 225 acres in 1912, while the yield rose from 2,800 pounds in the former to 6,700 pounds in the latter year. In view of the fact that October is the time of harvest and that, with the diminished or disappearing supply of thymol, the demand will probably be still further increased, every effort should be made not only to husband this year's crop to the best

advantage, but to provide for a largely increased seeding next spring.

Physicians having hookworm cases under their care should give this remedy a thorough trial and report promptly their results in the medical journals. Case notes should be accompanied by information as to the sources of the oil used and, if possible, as to the method of its distillation; it has been alleged that chenopodium grown in different localities, and oils distilled by different processes have shown varying degrees of efficacy. For use in the South, where the plant grows as a weed, the possible efficacy of a decoction, made by boiling one ounce of the fresh plant in a pint of milk or water, administered in wineglassful doses, should be remembered and tried under careful supervision. Data of this kind should aid in rehabilitating a truly American remedy, said to have been used by the Indians as a vermifuge before the landing of Columbus, and in helping the American profession to do without some of the products which, hitherto, have been almost wholly "made in Germany."—*M. G. Motter, M.D., in Public Health Reports.*

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MODERN METHODS OF DIAGNOSIS OF DISEASE:—An old story is it now, to tell how Pasteur, Von Behring, Pfeiffer, Widal and Brunebaum discovered that the blood of those ill with typhoid, pneumonia, Asiatic cholera, and other microbial maladies contains some anti-bacterial product which seizes the invading germs, makes them halt at their depredations and clumps them in little, sticky licorice balls. This is the test used to distinguish one fever from another.

Now, with the precision of a sharpshooter, he takes a few drops of blood from the fever-stricken one. He hazards no "guess," "opinion" or "pseudo-diagnosis," but with water he mixes those scarlet dewdrops with the bacilli of typhoid, plague, dysentery, animal cholera and various other distempers.

Within an hour the particular bacteria responsible for the trouble will have stuck to each other in such a way as

to lose much of their power for evil. Thus, if they be the typhoid bacilli, you know the patient has typhoid fever and not tuberculosis, as might have been "guessed" by doctors who fail to avail themselves of the laboratory aids to diagnosis.

The year 1914 will be noteworthy in the annals of medical discovery. It has been for some time the aim of scientific research to find a means to diagnose the various noninfectious, nongerm-made maladies. This, however, has until now remained a stumbling block in the path of medical progress.

Very recently Prof. Abderhalden, the eminent chemist of Halle, Germany—who, like Pasteur, Roentgen, Ehrlich, and others who have opened up new roads of diagnosis and treatment, is not a physician—has gracefully surmounted this last fortress. He has evolved a novel and efficient method by which a diagnosis of liver, kidney, stomach, brain, or any other tissue disorder can be obtained.

Just as the fluids and juices of any microbe-infected tissue almost at once manufactures an antidotal liquid to combat and imprison the invading poison, so, according to Prof. Abderhalden's practical discovery, there is also made a tissue juice to neutralize the poisons poured into your internal reservoirs, whenever any structure of your anatomy is sick or injured.

These new anti-fluids flow through the catacombs and sewers of your blood and lymph streams. They appear almost at the beginning of cancer, liver, brain, typhoid and all similar ailments.

Prof. Abderhalden not only disclosed these facts, but he has without reservation, and without a patent freely given to the world at large a practical way in which these chronic, noncontagious, mysterious maladies can be precisely determined.

For twenty years, doctor," complains Mrs. Chronic Sufferer, "I have tried every medicine, every quack and every hospital for my trouble, yet nobody knows what it is."

"We shall soon know," says the young Aesculapius, fresh from the laboratory. Just allow me to have a few drops of blood from the crook in your elbow."

With a little needle he painlessly pricks open a vein, allows some blood to drop like sun-tinted dew into each of a dozen or so glass thimbles. Then into each of these he drops first a fragment of liver, then a slice of kidney, in turn a bit of thyroid, brain, muscle, nerve, bone, stomach, adrenal, pituitary, cartilage and tonsil, and soon all are gently deposited in an incubator to keep them at blood heat.

The next afternoon the mixtures are each examined, and lo! that which contains the bits of nerve tissue and the one with the particles of muscle are, perhaps, seen to be digested and liquefied.

Plainly these are the units of tissue which have been diseased so many years. For the first time in the history of the earth a correct diagnosis can be sworn to.

It is all due to the fact that any organ of the living body, when ailing, sends its broken parts through your blood stream. These "auto-poisons" irritate the healthy parts. The latter object to the irritant and get busy. They make a liquid army of defense. This defending principle now journeys forth in the blood, like Don Quixote, to conquer and digest all enemies of the common weal. They are digestive agents, or "enzymes," to devour the newly-made poisons.

Thus, to discover whether it is the kidney, the thyroid, or the eye that is diseased, all that is now necessary is to take one of these organs from cold storage and put a fragment of each in with some blood of the sick individual. The part thus artificially digested corresponds with the structure diseased.

Treatment then can be begun upon a sound, logical basis, free from all guesswork. Such useless, antiquated "guess-names" as brain fever, biliousness, catarrh, rheumatism, neurasthenia, indigestion and other meaningless terms will cease to hide the truth and disappear from the language.—  
*Dr. L. K. Hirshberg, in Indianapolis Med. Journal.*

**THE MEDICAL MANAGEMENT OF EXOPHTHALMIC GOITRE:—**

The surgeons are, some of them, so convinced that the only treatment of this state is surgical that it is refreshing to hear the views expressed that medical treatment is useful. Abrahams, in the *Medical Record* of June 20, 1914, thinks the most distressing sign of the disease is the rapidity of the heart action. He finds, in his experience, that the tincture of strophanthus given in 5- or 10-minim doses, three times a day, is most useful to steady the heart. This drug has been his standby in a practice covering a period of twenty-three years. For a long time strophanthus was discredited in Graves' disease for the reason that it produced diarrhea. At present the tincture of strophanthus is free from that drawback, and can therefore be given with the same safety, security, and confidence as any other tincture without running the risk of undesirable side-effects. If, however, strophanthus fails, the tincture of belladonna, in the same dose, is a good second best. Strange to observe, digitalis, the sheet-anchor in many a form of cardiac disease, acts badly on the heart in Basedow's disease, although there is noted a strong functional similarity between the heart in Basedow's disease and some types of rheumatic cardiac lesions.

The other distressing conditions in exophthalmic goitre are tremor and nervousness. These are very well controlled by ammonium bromide in doses of twenty grains three times day; this need be given for a short time only, because when the strophanthus begins to act the nervousness subsides, as a good share of it results from the consciousness of a rapid and pounding heart.

The lukewarm shower bath is another means to allay tremor and nervousness. The bath also works well as a hypnotic. Iron is rarely indicated, an opiate never. Once in a great while, when the patient is much disturbed at night with frequent urination, one-quarter grain of codeine taken at bedtime will mitigate that evil.

There is no direct means of reducing the size of the thyroid except by the method of treatment thus far and further indicated. Yet plaster of any kind, belladonna, zinc, or adhesive, seems to reduce the size of the gland; the reduction is apparently affected by pressure of the plaster. Abrahams has seen a fair degree of diminution of the thyroid body obtained by repeated application of flexible collodion. The patients instinctively know the value of external pressure as they learn to put ribbons tightly around their necks, although in the beginning the ribbons are employed to hide the deformity.

The eyes rarely need attention, although in one case the eyelids were partially sewed up to keep the eyeballs covered. That was the severest case, Abrahams asserts, he ever saw.

The diet should be of the simplest kind. Some of these afflicted individuals have ravenous appetites for a time. Abrahams indulges them until they are satisfied; after they are surfeited they become docile and are willing to take advice. Tea and coffee are the bane of exophthalmic goitre. These beverages should be forbidden.—*Therapeutic Gazette*.

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THE ETIOLOGY OF PYORRHEA ALVEOLARIS:—An announcement of much importance comes from New Orleans concerning the etiology and treatment of one of those local conditions that has been much neglected, but which probably plays a role for evil in the human economy that entitles it to close attention.

On September 14, Dr. C. C. Bass and Dr. F. M. Johns, of the research department of Tulane University, presented a paper to the Orleans Parish Medical Society, giving the results of their study of eighty-seven cases of pyorrhea alveolaris. In eighty-five of these eighty-seven cases they found an ameba—the *entameba buccalis*—which they consider to be the cause of the disease. In treatment the most gratifying results were obtained by the hypodermic injection into the arm, of emetine hydrochloride in a dos-

age of one-half grain to one cubic centimeter of water. This injection is repeated daily for four days and then every seven to ten days for three or four injections, or until the gums are healed and the loosened teeth are again firmly fixed in the alveolus. The degree of destruction of the periodontal membrane determines practically the length of the necessary treatment—whether it can be completed in a few days or whether several months will be necessary for a complete and lasting cure.

It is a matter of some interest in this connection to note that A. J. Smith and Barrett, of Philadelphia, had previously demonstrated, empirically, that local application of a few drops of fluid extract of ipecac on a moistened brush to the gums in cases of pyorrhea alveolaris was attended with a very fair measure of success in attempts to effect a cure in this obstinate condition, so that now we have both a clinical and bacteriological foundation for our knowledge of the disease and the rationale of our treatment.

The early connection of this condition of the gums and teeth with nephritis in the minds of both the medical and dental professions is not entirely fanciful. The frequent association of the two is a matter of common observation. It is perhaps only in the habits of the average nephritic that the connecting link lies. A man who is likely to abuse his stomach is likely also to abuse his mouth. Now, however, that we know the cause of pyorrhea alveolaris it will be possible speedily to determine whether anything more tangible than the habits of the patient link the fatal nephritis to the disgusting, unsightly and most disagreeable pyorrhea.

Finally, it is a pleasure to note that the investigators suggest that this widespread affection can probably be prevented by brushing the teeth daily with a few drops of the fluid extract of ipecac in water.—*Cincinnati Lancet—Clinic*.



**THE ROLE OF PITUITARY EXTRACT IN OBSTETRICS:**—Boys, in the *Journal of the Michigan State Medical Society* for July, 1914, reaches these conclusions:

1. The extract is practically free from danger if used after dilatation is mostly accomplished and if employed for simple inertia.

2. It will save many hours of suffering, and exhaustion on the part of the patient, by hastening labor and permitting ether.

3. False pains may be changed to true ones in some cases—75 per cent in his series.

4. It will replace forceps in probably 70 per cent of cases in which they are indicated.

5. It will help to prevent puerperal sepsis.

Brodhead, in the *New York Medical Journal* of June 27, 1914, says he believes that the extract, when used intelligently, in the absence of disproportion and with good cervical dilatation, is a very valuable and a comparatively safe therapeutic agent. The fetal heart must be carefully watched, and chloroform should be at hand to relieve violent contractions, with forceps ready for instant use. The extract gives satisfactory results, as a rule, and is well worth a trial in properly selected cases. He has usually given one cubic centimeter as the initial dose, repeating it every twenty minutes, if necessary, until three doses have been given. If three injections fail, he has discontinued the use of the extract.

In Cæsarian section he has injected the extract immediately before making the incision, with excellent results. The uterus contracts well, and the operation is made easier because of the comparative absence of hemorrhage.

For postpartum hemorrhage he has never relied upon the extract alone, always combining it with ergot. He has no reason to doubt, however, that the quick action which is obtained in the use of the extract is of undoubted value in the treatment of this variety of hemorrhage. The use of the extract as a galactagogue has never appealed to Brodhead

as being practicable, and he has never used it for this purpose. For retention of urine, some observers have praised the extract highly, but in the few cases in which he has tried it the result has been *nil*. So strongly is he opposed to the use of the catheter in the puerperium, however, never using it until every other known expedient has failed, but he intends giving the extract a further trial. Whether pituitary extract would possess any advantage over ergot for use under these circumstances he is unable to state.

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CLINICAL ASPECT AND MEDICAL MANAGEMENT OF ARTHRITIS DEFORMANS:—(*Illinois Medical Journal*, 1914, xxv, 14.) F. Billings considers arthritis to be primarily of infectious origin, and, as shown by Rosenow, Payne and Poynton, is usually due to some form of streptococcus. Since the different forms of streptococci are produced, possibly by conditions in the tissues, it is rational to believe that in different people different strains may be grown which cause either endocarditis, acute arthritis, chronic arthritis, etc., as the case may be.

There is much confusion in anatomical classification. Various anatomical changes may be found in the same case, most likely due to the three different sources of the blood supplies of the joint strictures, hence, the varieties of pathology in chronic joint disease. He believes the muscular atrophy and contracture is due to a chronic myositis, instead of from nervous influence or as a secondary thing. Sometimes muscles are affected without involvement of the joints, as in the biceps or erector spinae. Histological examination of these muscles shows chronic myositis. Cultures sometimes yield coccal forms of organisms. The secondary cause of the trouble is probably faulty metabolism manifested by general debility, etc., with a protracted illness possibly due to mismanagement in treatment and too much medication. There are, however, some changes which are not understood, where a number of bones have become fused into one mass.

For the above reasons, the author thinks arthritis deformans a clinical entity which is caused by a chronic focal infection, generally in the nose, throat, or mouth, rarely elsewhere. The streptococci found are capable of mutation. This clinical entity may be differentiated from other arthritides by thorough examinations.

The first examination of the patient probably shows arthritis deformans instead of some other chronic joint trouble. This settled, the next step is to discover the source, if possible, and remove it. If there have been frequent attacks of tonsilitis and the tonsils look abnormal, Billings advises their removal; even if no other focus is found, he thinks it is well to remove them anyway.

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CACTUS:—Finley Ellingwood, in the August number of the *American Journal of Clinical Medicine*, asserts that cactus grandiflorus has probably been the object of more diverse opinions during its investigation than any other remedy of the vegetable materia medica. He states that he must be forgiven, if after thirty years' constant use he has formed conclusions as to its action, that differ in many respects from those advanced by other writers. The most conspicuous influence of this remedy upon the heart is its nutritional influence, and it certainly increases the musculo-motor energy of the heart. Cactus, he believes, is the heart tonic par excellence, in that it produces increase of action and restoration of nerve function, from actually increased nervetone, in this way inducing an improved nutrition of the entire nervous and muscular structures of the heart. The indications for its use he specifies as: functional disturbances of the heart and weakness of the heart associated with feeble, irregular pulse, some dyspnoea, and a sensation of weight or oppression in the chest, all of which conditions depend upon atonicity or enervation. So marked is its influence in strengthening the action of the heart, and in improving the nutrition of the brain, thus improving the circulation, that it can be prescribed with great benefit in

neurasthenia. Whenever in addition to nerve irritation there should be an apparent exaltation of nerve force, a temporary excess of strength in the cardiac action, or increasing arterial tension, cactus is contraindicated. In pneumonia he advises its use instead of digitalis, as equally efficient and far safer. It is also of value in the various nervous manifestations incident to the menopause. As to dosage, he has never seen toxic effects follow the administration of this remedy when properly indicated. While as high as thirty drops of a strong tincture has been recommended, he has never given above five, but two or three drops every two hours is a better method of prescribing than six or eight drops three times a day. In children, ten to thirty drops in a four-ounce mixture, a teaspoonful dose in proper dosage.

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**RULES FOR PREVENTING TYPHOID FEVER:**—In the *Journal of the American Association* of June 6, 1914, Jordan gives these rules:

*For the individual:*

1. Keep away from all known or suspected cases of typhoid fever.
2. Wash hands thoroughly before meals. Do not use "roller towels."
3. Use drinking water only from sources known to be pure, or if this is not possible, use water that has been purified by municipal filtration.
4. Avoid bathing in polluted water.
5. Use pasteurized or boiled, instead of raw, milk.
6. Select and clean vegetables and berries, that are to be eaten raw, with the greatest care.
7. Avoid eating "fat" raw oysters and, in general, oysters and other shellfish whose origin is not known.
8. Be vaccinated against typhoid fever in all cases in which any special exposure is known or feared.

*For the community:*

1. Insist on the hearty co-operation of all persons with an efficient health officer.
2. Require notification and a reasonable degree of isolation of every known or suspected typhoid case.
3. Exercise strict control over the disinfection of known typhoid excreta.
4. Insist on pure or purified water supplies.
5. Require pasteurization of milk supplies.
6. Regard all human excreta as possibly dangerous, and control their disposition in such a way as to prevent contamination of food or drink.

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DO AMEBA BEAR A CAUSITIVE RELATION TO RIGGS DISEASE: In an editorial in the *New York Medical Jour.*, July 11, 1914, we find that, according to Professor Allen J. Smith, M.D., and M. T. Barrett, dentists, both of Philadelphia, they have found amebas present in scrapings from pyorrhea pockets in about fifty cases, while in gum margins of persons free from pyorrhea alveolaris none were found. Their technic consisted in collecting scrapings from pockets with a small platinum spoon; these were suspended in saline solution and viewed under a cover glass. The identity of the ameba was not determined, nor do they report through inoculation experiments an etiological relationship to the disease. Having in mind the amebicidal action of emetine hydrochloride in amebic dysentery, they used it on the patients; a 0.5 per cent solution of the emetine hydrochloride being injected into the apical pockets, filling them with the solution as the needle was withdrawn. This treatment was applied every day, or second day, with the result that the improvement was marked; suppuration ceased and the gums rapidly assumed a healthy appearance; there was also improvement in systemic symptoms. Further experiments may throw more light on this preliminary report which will be of interest and real value in our treatment of this troublesome complaint.—*American Practitioner*.

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***Original Communications.***

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**THE DIAGNOSIS OF CHRONIC DUODENAL ULCER.\***

**BY C. W. BROWN, M.D., OF NASHVILLE, TENN.**

Before entering upon the discussion of this subject, I wish to review briefly the anatomy of that portion of the intestine known as the duodenum. The duodenum—about ten inches in length—is the shortest, widest, and most fixed part of the small intestine. Its course presents a curve, “U” shaped, though sometimes in consequence of the short transverse portion it is “V” shaped. Within this “U” or “V” shape lies the head of the pancreas.

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\*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, Nov. 3rd, 1914.

The first portion of the duodenum commences at the pylorus of the stomach, and is less fixed than the remaining portion. It varies as to whether the stomach is empty or full. When empty, it is situated at the right of the upper border of the first lumbar vertebra, and is nearly horizontal and transverse, but when distended the position is somewhat altered. The proximal end of the duodenum becomes altered in its position while the distal end remains fixed. Whether transversely or antero-posteriorly directed, it reaches the under surface of the liver; here making a sharp curve, it descends along the right of the vertebral column, generally, to the body of the fourth lumbar vertebra. It now makes a second bend and passes across the front of the vertebral column from right to left, and ascends on the left side of the vertebral column and aorta to the level of the upper border of the second lumbar vertebra, and here terminate in the jejunum.

From this it will be seen that the duodenum is divided into four parts: *Superior, Descending, Transverse, and Ascending.*

The superior portion (usually two inches in length), begins at the pylorus and ends at the neck of the gall bladder. It is the most movable of the four portions, and is almost covered with peritoneum derived from the two layers of the lesser omentum.

The second, or descending portion, is three or four inches in length, and extends from the neck of the gall bladder on a level with the first lumbar vertebra along the right side of the vertebral column to the body of the fourth lumbar vertebra. It is crossed in the middle third by the transverse colon; above it is in contact with the liver, behind with the front of the right kidney, the renal vessels and inferior vena-cava, and at its inner side is the head of the pancreas and the ductus communis choledochus. The common bile duct and pancreatic duct perforate the inner side of this portion obliquely, some three or four inches below the pylorus.

The third, or transverse portion, varies much in length. When "U" shaped, it is two inches in length; when "V" shaped, its length is practically wanting. It commences at the right side of the fourth lumbar vertebra, passes from right to left, with a slight inclination upward in front of the vessels and crura diaphragm, and ends in the fourth portion just to the left of the abdominal aorta.

The fourth, or ascending portion of the duodenum, is about two inches in length. It ascends on the left side of the vertebral column, where it turns abruptly forward to become the jejunum. The first part of the duodenum, as before stated, is somewhat movable, but the rest is practically fixed and is bound down to neighboring viscera and the posterior abdominal wall by the peritoneum.

#### PATHOLOGY.

These ulcers are of a rounded form; are variable in size, and are located, generally, in the upper horizontal portion of the duodenum.

According to Moynihan, in at least 95 per cent of the total number of cases the ulcer lies within the first portion of the duodenum; that is, within an inch and one-half or two inches of the pylorus. In Collin's series of cases, 262 in number, the ulcer was found in the first portion in 242; in the second in 14; in the third in 3, and in the fourth in 3. The most constant position for the ulcer is on the anterior wall of the duodenum. However, they are sometimes found on the posterior wall. Hemorrhages tend to occur from those on the anterior wall, while those of the posterior wall tend to perforate, probably, due to their crater-like character similar to ulcers found in the stomach.

#### SYMPTOMS AND DIAGNOSIS.

Moynihan claims that there are few diseases whose symptoms appear in such definite and well-ordered sequence as is observed in duodenal ulcer. The patient may date his complaint from an early period in life, and, frequently, these patients, when asked as to how long they have been



suffering, will reply: "All my life." As a rule, the patient is in middle age, from twenty-five to forty-five; and males are more frequently affected than females. According to Mayo, 79 per cent of cases occur in men; 21 per cent in women. If the earlier history is well remembered, the patient will say that insidiously, almost imperceptibly, he began to suffer from a sense of weight, oppression, or distension of the epigastrium after meals. At first the discomfort may, apparently, be capricious; but it is not long before notice is taken of the fact that it comes usually two hours (or a little more) after food has been taken. Immediately after a meal there is ease; if pain or discomfort were present before, the meal relieves them and soon banishes them completely for a time. Then again the pain is felt in two, three, four, and sometimes six hours later. When the pain consistently comes at an earlier time than two hours after food has been taken, two conditions may be found, *i. e.*: either an active ulcer has contracted recent adhesion to the abdominal wall or the liver or stenosis has begun to develop. In some cases the pain may come more quickly if the food is entirely of fluids. Some of these patients may go for months, or even years, without ever taking a meal of solid food. With the exclusive liquid diet the pain comes within an hour, more or less, after the meal. The interval between the taking of the food and the onset of the pain is very remarkable; it is constant from day to day when the character and quantity of food remains the same. With liquid foods the pain comes earlier; with heavy, solid, indigestible food the pain comes later; with the ordinary meal of solid and liquid foods the pain rarely ever appears in less than two hours. The patient will tell you that when he begins to feel hungry the pain appears. To this, Moynihan has given the name, "Hunger pain."

If the meal is taken at 1 p.m., the pain will come with almost unvarying regularity at about 4:00. It is noticed that after each meal the pain comes at its characteristic interval. The patient, when asked if food causes pain, will

almost invariably say: "No; food always makes the pain better." A very characteristic feature of the pain is that it wakes the patient at night, and constantly, the time of waking is said to be about 2 a.m. The relief of the pain by food is quickly realized by the patients themselves, and leads to the practice of keeping near at hand a biscuit, or some other food, or drink that can be taken at once, when awakened by the pain. The pain is often preceded or accompanied with a sensation of weight, fullness, or distension of the epigastrium; it is described as boring, gnawing, and burning. It may be relieved by belching, and constant efforts are often made to bring on eructation of gas, which is followed by momentary relief. Sometimes there may be a slight regurgitation of food and the patient claims that the taste of this is bitter or acid; the throat feels hot, as if scalded, and the teeth are said to feel "chalky."

Mayo claims that this eructation of acid is very injurious to the teeth and that many of these patients have their upper teeth destroyed by its action. After belching this acid there is a free gush of saliva, the swallowing of which may give temporary relief from the pain for a period. Sometimes throughout the history of the case the pain remains confined to the epigastrium, but it may strike through to the back or pass around to the right side. In some cases, though infrequent, the pain is said to be of a cramp-like character, and it is very probable that a spasm of the pylorus, protective, no doubt, in its character, is actually present. Throughout the whole period the pain is felt the appetite is good. Vomiting is very infrequent, and is rarely present until stenosis appears. In a number of cases the patient shows no abdominal tenderness. There is some epigastric tenderness in the middle line, or to the right; but even in the stage of active ulceration this is, by no means, constant, but the patient, if examined two or three hours after the meal, when the pain is at its height, may show some tenderness.

Bassler says: "Among the special clinical points in differentiating ulcers of the two sites, may be mentioned the pain." In his experience, this is apt to be not so acute as in gastric ulcer, and more burning and boring in character. It is present in about eighty per cent of all cases, and it is commonly located in the middle, or slightly to the right. In other cases, however, it is most acute and excruciating, and may even be complained of close to the right costal margin, but rarely out or down as far as the location of the gall-bladder (under the tip of the ninth right costal cartilage). Remissions of pain are often a distinctive feature, and when present the paroxysms are usually observed from one to three hours after ingestion, when the ulcer site has been mechanically and chemically irritated by the acidulous food. Pain that is instantly relieved by the alkalies suggests gastric origin; and when not relieved until later (three hours) suggests, when other symptoms are present, that the ulcer is in the duodenum. Pressure upon the duodenum over its horseshoe course around the umbilicus usually elicits tenderness, this being between the stomach and the biliary triangle. Characteristic of duodenal ulcers is the relief of pain on taking foods. Many theories have been advanced for the production of the so-called "Hunger Pain;" but Bassler believes it is due to the new foods causing a closing of the pylorus for the time being more than to the binding of the stomach acidity. This "Hunger Pain" is commonly present at night, requiring foods to relieve it and permit sleep. A special tenderness may be confined to the right side of the spine, although this is an uncommon symptom and not to be depended upon in diagnosis, even when present.

A great number of patients who suffer from "Hyperacidity" have later been operated upon and demonstrated the existence of duodenal ulcer. Gibson mentions a series of duodenal ulcers proven by operation, in which he finds that the total acidity varies from one-tenth per cent to 26 per cent, thus showing that the degree of acidity in duo-

denal ulcers varies in a wide limit. According to Adams, in fourteen out of twenty cases, the total acidity averages 96 per cent, and the free HCL. ranges from 21 to 27 per cent; hence, in 70 per cent of the cases, there was a distinct hyperchlorhydria, in 30 per cent the acid was normal, and in 2 cases the acid was below normal.

If the ulcer is active, the patient being in the height of the attack, free HCL., in the majority of cases, is in excess. If the attack is over, or the patient has reached the stage of stenosis of the duodenum, at the site of the ulcer, then the free acid may be diminished or absent. The results of chemical examination of the stomach contents in these cases of duodenal ulcer are rarely of value.

Physiologically, the acid chyme in the pyloric end of the stomach stimulates the gastric motor and secretory functions. In the upper duodenum it controls the pyloric apparatus, and the rate of the gastric outflow is regulated by the rapidity with which this acidity is neutralized by the alkaline, biliary, and pancreatic secretions.

Pathologically, the acid stomach juices, either because of perverted secretion, or through lack of local resistance, or both, become the most important factor in the development of the ulcer, and largely confines the ravages to these two embryologically associated structures; the duodenum and pyloric end of the stomach.

In the earlier stage of the ulcer the hyperacidity is a fairly constant symptom, although when there is obstruction, or the disease exists in individuals in the later decade of life, the acidity may be normal or below normal. Hypersecretion, giving rise to sour belching and eructation of acid fluids, is a prominent feature, and one that is more persistent than hyperacidity.

Graham says: "The periodicity is so constant and striking a feature of ulcer of the stomach and duodenum that one cannot but have in mind this lesion when the patient complains of repeated attacks each covering days, with an intermission of normal health of varying time. The onset

of symptoms is often initiated without discoverable cause, appearing suddenly and continuing without interruption for days, weeks, or even months, each day a repetition of the former, each meal producing about the same effect: first ease, later followed by the usual syndrome of pain, or burning distress, gas, sour eructations, and vomiting of sour mouthfuls of varying quantities, all these being at their worst from two to five hours after meals.

"Following this period of attack comes an intermission of days, weeks, or months; appearing, often, as unaccountably and as suddenly as did the distressing symptoms. These attacks recur at irregular intervals for years and continue for varying periods, increasing in intensity perhaps but slowly, the intermission shortening until, finally, the patient may fail to reach at any time that complete ease of previous years. Early in the period of disturbance, and often for years, the interval is one of perfect health, and after the symptoms have disappeared, the patient soon reaches his normal condition. Again, it may be only a partial remission; the patient may never quite attain normal, or his 'good days' may be only days of moderate ease. The appetite is usually good until complications have changed the character of the symptoms, at which time it becomes necessary to examine carefully into the early history in order to arrive at a logical diagnosis.

"These periods of complaint with the periods of intermission, each covering days or months, are so characteristic that, including other details, this one feature is often sufficient to warrant a probable diagnosis.

"However, periodicity is not of itself peculiar to ulcers of the stomach and duodenum. The character of the attack must be considered carefully; gall stone and appendiceal colics recur irregularly, often increasing in severity as attacks multiply, may, and often do, appear suddenly and without cause. All three have one feature in common; each attack is but a part of the usual round of trouble, and the intermission is but a part of the cycle. In the latter case

no more than in the former may this quiescent period be regarded as that of cure."

Moynihán says: "Certainly, the most characteristic feature enabling a diagnosis of chronic duodenal ulcer to be made is the periodicity of the symptoms and their recurrence from time to time in the 'attacks,' their complete abeyance in the intervals.

"A patient who has suffered for years will say that an 'attack' comes on as a result of exposure to cold, or getting the feet wet, or a hasty or 'indigestible' meal, or worry or overwork. A cause can almost always be assigned for the onset of the symptoms; a recurrence of the cause is usually followed by a reappearance of the symptoms. The most common of all these causes is 'getting cold.' In consequence the great majority of patients will say that the attacks are especially prone to come in the winter months—December, January, or February. In the summer the symptoms are almost always present."

John B. Murphy, of Chicago, says: "From clinical observation alone, it seemed evident that gastric and duodenal ulcers were practically metastatic lesions. This was illustrated by their occurrence at that season of the year when infections in the upper air passages were most frequent, and they also ran the classical course of such infections."

*Significance of Pain.*—Pain varies from mild distress to that of great intensity, and, unless complications have introduced great modifications, its appearance, control, and disappearance are almost, if not quite, the final evidence required for a correct diagnosis. The pain appears some time after meals, usually in from two to five hours. After a hearty meal the burning, gnawing feeling begins, increasing in intensity until vomiting or irrigation has removed the acid-offending material. Food eases the pain, especially is this true in the history of duodenal ulcer. Later, relief comes only after ridding the stomach of all offending material by irrigation, or forced vomiting. Then the pain comes in definite periods of attack; comes daily—two or

three times a day—during this period, from two to five hours after meals, and is, therefore, pre-meal as often as it is after-meal, in time. It is epigastric, radiating seldom to other areas, and, except in the later stages, is relieved in part, at least, by food, drink, alkalies, vomiting, or irrigation.

Locating an ulcer from the area of pain as given by the patient is perplexing and often very uncertain. Most of the pain is epigastric, let the lesion be where it may; but, the lower the lesion, the oftener is the sensation of pain to the right of the median line, and some ulcers, especially, of the duodenal variety, give characteristic findings. The longer food gives comfort—other things being equal—the further down the ulcer is situated; so that in duodenal ulcer, especially in the earlier days of its history, food gives relief for a longer time when the ulcer is located higher—*i. e.*, in the stomach proper.

Albu does not agree with Moynihan as to the definite symptomatology of duodenal ulcer, for he thinks that there is neither a uniform nor a constant clinical picture. If one studies carefully the series of duodenal ulcer cases, the only symptom which is fairly constant in all he claims is the periodic severe pains. The pains which appear from three to four hours after meals is a characteristic feature, especially when these pains occur at night and are relieved by food. Albu says the same symptoms appear in hyperchlorhydria, which is only a symptom, according to Moynihan, of duodenal ulcer. Albu insists, however, that there is a hyperchlorhydria of a purely nervous origin (alcohol, tobacco), and without any anatomical lesion. Another symptom on which Albu lays emphasis is the rapid emaciation in a relatively motor insufficiency of marked degree as the most important. So far as treatment is concerned, Albu believes in internal therapy, and he resorts to surgery only when the internist has exhausted all his resources.

Allard takes exception to the oft-repeated statement, that hyperchlorhydria is but an expression of duodenal ulcer,

and he warns against the adoption of this, Moynihan's assertion. In this he and Albu agree. He discredits all the assertions that in ulcer the appetite is very good, and the nutrition is unimpaired, for he believes emaciation is an early and common symptom, and in this belief he and Albu are one. He is in accord with the comparative infrequency of vomiting as a symptom, but does not hail it as an important diagnostic sign. He finds occult blood a constant sign wholly neglected by Americans and Englishmen, on account of their not including such examinations in their routine. Allard extols the finding of blood in the feces and not in the gastric contents as a valuable sign, and recommends Einhorn's test. The latter consists in having the patient swallow a string, and then measure the distance on which the brown discoloration (blood) appears. If discoloration is seen 55 to 65 cm. from the incisor teeth, duodenal ulcer is present. He concludes his article by saying that to lay as much stress on the character of the pain is not conducive to the advancement of the diagnosis of duodenal ulcer. He modestly states that the infrequency of the diagnosis of ulcer in Germany is because the Germans have really been too exact in their methods. He says Ewald's recommendation to make an exploratory laparotomy does not meet with his (Allard's) approval, if the laparotomy is advised on the basis of American anamnesis.

Kreuzfuchs, who follows the teaching of Moynihan, Mayo, and the Anglo-American school, contributes an admirable article, though not new in thought. In marked contrast to Allard, Kreuzfuchs lays great emphasis on the history of the case. He acknowledges that there are histories which so closely mimic the details of a true ulcer history that wrong diagnosis is sometimes made. Moynihan, himself, insists on this, but the number is very small, but 2 per cent according to him. Allard is evidently aware that Moynihan makes an occasional exception to the statement: "History is everything in the diagnosis of duodenal ulcer." Kreuzfuchs believes that there are many characteristic



symptoms, and in all the repeated attacks of pain with intervals of absolute freedom from all discomfort.

#### DIFFERENTIAL DIAGNOSIS BETWEEN GASTRIC AND DUODENAL ULCER.

Sommerfield has tabulated the symptoms occurring in 44 cases of ulcer of the stomach and duodenum: 11 were ulcers of the stomach, somewhat removed from the pylorus, 12 were pyloric ulcers, and 21 were duodenal ulcers. The occurrence of these symptoms was estimated in percentage, and although this is by no means a reliable means of obtaining a true symptomatology, nevertheless the results furnished were interesting. Especially important for the diagnosis of duodenal ulcer is the periodicity of the symptoms, which is never lacking in the history; or, less important, but still valuable as a symptom, is the pain sometimes after eating. He holds that the localization of the pain is significant, as the following table will show:

|                          | Ulcer at a distance<br>from pylorus | Pyloric<br>ulcer | Duodenal<br>ulcer |
|--------------------------|-------------------------------------|------------------|-------------------|
| Pain in epigastrium..... | 70%                                 | 50%              | 38%               |
| Ulcer pain to right..... | 10%                                 | 42%              | 62%               |
| Ulcer pain to left.....  | 20%                                 |                  |                   |

He does not attach much importance to the history, on which alone a diagnosis can never be made, as gastric ulcers are often expressed in the same symptomatology.

*X-Ray Diagnosis.*—So far as the X-Ray is concerned, the diagnostic features seem to be changes in the peristalsis and motility of the stomach. It was Barclay, I believe, who first observed increased peristalsis and early emptying of the stomach; and since his paper, these phenomena have been repeatedly seen and their importance confirmed. Muller devotes an instructive paper to the X-Ray diagnosis of duodenal ulcer, his observations being conducted on 22 cases of this disease. There was always lively peristalsis of the stomach, so that this may be regarded as a constant feature of the condition.

Retention of bismuth in the depression of an ulcer seems to be regarded as an important sign of duodenal shadow which persisted after most of the bismuth had left the intestine, and his findings are fully confirmed by Kreuzfuchs and Muller; the former admitting that not all cases of duodenal ulcer presents this shadow, yet confesses, when it is seen, it must be regarded as a pathognomonic sign. Kreuzfuchs warns us not to mistake for this a retention of bismuth, which is sometimes seen in the absence of ulcer. This shadow may reach the size of a dime, but it is not persistent in one place and in one form, but changes its shape continuously. The cause of this rare performance is not understood, but it may be due to a kink of the duodenum in the case of gastropotosis.

*Gall Bladder.*—Chronic gall bladder disease is in many cases accompanied by a dyspeptic syndrome closely simulating the symptoms in chronic ulcer of the stomach or duodenum. This is the most frequent source of error in the diagnosis of painful, upper abdominal lesions. The typical hepatic colic, with the sudden onset of pain in the epigastrium, diaphragmatic-bursting feeling, pain radiating into the back, sudden cessation, with or without jaundice supervening, should not be difficult to recognize. Yet a duodenal ulcer having an early tendency to perforate may have almost similar symptoms. On the other hand, the chronically diseased gall bladder with the impacted stone, probably ulceration, and adhesion, in which no jaundice appears, and the gastric symptoms, such as gas, vomiting, burning distress, sour eructation, impaired appetite, and dilatation, predominate, in which the pain is moderate and follows food, will often be diagnosticated as ulcer.

*Appendiceal Dyspepsia.*—Appendiceal disease of the acute type should not offer great diagnostic difficulty. Often a vague dyspepsia may precede for some time acute localizing seizure. In certain percentage of chronic recurrent cases we have an associated dyspepsia, often simulating gastric disease. This is in all probability due to reflex

secretory and motor disturbances in the stomach. In this type there are distinct prolonged attacks. Pain is not referred to McBurney's Point, and often no appendiceal tenderness can be elicited. There may be no symptoms that accompany the usual attack of appendicitis, except those directly referred to the stomach. The pain may be directly reflex, may be due to the pyloric spasm or to a gastritis, owing to hypersecretion. At times, however, during the course of the disease, McBurney tenderness, or a history of subjective pain in the right ilias fossa may be elicited. As a rule, there is not a regularity of onset of pain after food—the periodicity of attack—which characterizes duodenal ulcer. In appendiceal disease, food often causes immediate distress; rarely relieves, unless hyperacidity is present.

*Cancer of the Stomach.*—This disease often follows upon latent or active ulcer of the stomach. In a recent study of several hundred cases, which were operated in the Mayo Clinic, 60 per cent gave a history of previous ulcer. This was corroborated by pathologic evidence, in which a series (189 cases) showed microscopic proof of pre-existing ulceration in 67 per cent. Cancer should always be excluded in the middle-aged or elderly patient who has had no previous dyspepsia, nor complains of dyspepsia, with or without pain or distress; perhaps vague at first, and associated with loss of weight and strength. When cancer has once fastened itself upon the stomach, the course is short and steadily downward, and remissions are seldom experienced. Pain in cancer is quite a constant symptom, though less noted than in the ulcer. It is less acute, more continuous, a dull, strange, depressing ache, and usually immediately intensified by ingested material. It is epigastric, and tender areas are not common. In cancer, so-called "pyrosis" may increase in time and amount, but less in acidity. Regurgitation, day or night, is also increased in amount and likewise loses its acidity. Vomiting is often more delayed, more copious, often blood-mixed, and gives a peculiar and

great relief, though rarely so complete as in ulcer. Vomiting and nausea are more often excited by liquid food; gas and bloating become more chronic and distressing, appetite is lessened and finally lost, or a disgust for food is felt.

Now, in conclusion, I wish to summarize briefly the points which enable us to diagnose as nearly accurate as can be done the chronic duodenal ulcer:

1. *History of the Case.*—All authors lay particular stress upon getting an accurate history. Moynihan believes that almost every case can be accurately diagnosed if you will obtain a history of the case.

2. *The Periodicity of the Attack.*—Great stress is laid upon this point. The attack occurs most frequently in the fall and spring. Murphy believes that duodenal ulcers are metastatic; that they accordingly follow colds and infection of the respiratory tract.

3. *The Eructation of Acids and Gases.*—This is one symptom that is almost always present in every case of gastric and duodenal ulcer.

4. *The Pain.*—The peculiar location of pain is claimed by some to be characteristic of duodenal ulcer. The pain in the median line or epigastric region, or just to the right under the costal margin, and tenderness particularly at the height of the attack.

5. *Vomiting of Blood, and Finding of Blood in the Stools.*—According to Bassler, about 30 per cent give a clear history and about 70 per cent a suggestive one of having blood in stools. Reports from Mayo's Clinic, however, do not give as high per cent.

6. *The X-Ray* has been used to assist in the diagnosis of gastric and duodenal ulcer, and has been found of great value in cases where the ulcer is sufficiently deep to hold bismuth—coming from the stomach.

7. *Bassler's Modification of Einhorn's Test.*—This consists, as has been heretofore mentioned, in attaching a No. 8 braided silk 38 inches long to a BB shot, enclosing the

shot in a capsule. A knot is tied 28 inches from the capsule. The patient swallows this capsule, securing it to the gown or fastened to jaw with adhesive. This remains in the stomach overnight; in the morning, before breakfast, it is drawn out and hung by the end until it dries. The blood stain upon this cord would indicate by measurement approximately the location of the ulcer.

8. *Pain coming on at night relieved by food* is of great importance, and is considered by Mayo and Moynihan, almost of itself, diagnostic of duodenal ulcer.

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#### PRINCIPLES OF CRIMINAL ANTHROPOLOGY.

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*Honorary President of the "Third International Congress of Criminal Anthropology" of Europe.*

Criminal anthropology is a recent line of research. It includes the study of man mentally, morally, and physically, and necessarily depends on the results of many sciences. It is therefore distinctively *synthetic* in character. Criminal anthropology affords more opportunities for persons of

ability to carry out the highest ideals better than any other branch of inquiry.

The following are some of the principles of criminal anthropology, or what might be called its platform:

1. Degrees of criminality should be estimated according to detriment to the community. From this point of view, international crime, or war, is by far the greatest of all crimes.

2. History is mainly history of the abnormal, especially war, and one of the objects of criminal anthropology is to lessen and prevent war. Montaigne says: "It is more barbarous to kill a live man than to roast and eat a dead one."

3. The greatest of all studies is man, which is based upon the individual, the unit of the social organism.

4. If the study of civilized man is to become a science, it must depend upon investigation of large numbers of individuals, and the method should be the same for all classes, if we are to distinguish between the normal and abnormal.

5. The best method of study for criminal anthropology is that of the laboratory in connection with sociological data.

6. The thorough investigation of ONE human being with the means at the disposal of science, would make a volume.

7. All facts about human beings are important from the scientific point of view, whether those facts be immediately available or not.

8. All that is diseased is abnormal, but not all that is abnormal is diseased; thus a hand with six fingers is abnormal, but not necessarily diseased.

9. We must study the normal to comprehend the abnormal, for

10. When the normal acts in an unsuitable way, or at the wrong time or place, it may become abnormal. The fundamental conception of the abnormal is EXCESS of the normal; but

11. The difference in degree between the normal and abnormal can be so great as to result in a difference of kind;

just as when two fluids reach a certain amount, a precipitate is formed which is very different from the ingredients from which it was deposited.

12. Abnormal man may be abnormal in the right direction, as genius man, talented man or statesman; or in the wrong direction, as criminal, pauper or defective man. It is all MAN, and the study of these different classes might be called the anthropology of the living as distinguished from prehistoric anthropology.

13. Of all forms of abnormal humanity crime is nearest the normal; the study of criminals, therefore, is mainly the study of normal men, and knowledge thus gained may be generally applicable to the community as a whole. Therefore,

14. The prison and reformatory can serve as a humanitarian laboratory for the benefit of society. As the surroundings of the inmates are similar, conditions for scientific research are favorable.

15. As in machinery we first repair the parts out of order, so in society we first study the criminal, pauper, insane, feeble-minded and other defectives, all of whom constitute about one per cent of the community. But

16. Why should we allow one per cent of society to cause so much trouble and expense to the remaining ninety-nine per cent, crime alone costing more than one-half billion dollars annually? It is mainly because of neglecting the young, where study of man should begin. For

17. There is little hope of making the world better, if we do not seek the cause of social evils at their foundation.

18. No evil can be PERMANENTLY lessened without first finding its cause. There is probably no ONE cause of anything, but a chain of causes.

19. Drunkenness is not only one of the main causes of crime, but one of the greatest enemies of humanity, because it brings suffering upon so many innocent people.

20. We cannot be tempted to do wrong unless there is something in us to be tempted; that something is a part

of ourselves as distinguished from our environment; therefore,

21. The comprehensive study of man requires investigation of both the individual and his surroundings, for the environment may be abnormal rather than the man.

22. Cranks or mattoids who attempt the lives of prominent persons are very important solely on account of the enormous injury they can do to society. They therefore should be studied most thoroughly.

23. Just as the physician studies his patient in order to treat him properly, so one should study the criminal.

24. The exhaustive investigation of a single criminal illustrates just how and by what steps both environment and inward nature lead to criminal acts.

25. Criminals, paupers, and other defectives are social bacilli, which require as thorough scientific investigation as the bacilli of physical disease.

26. No one should be held responsible for the first fifteen years of life, nor is any one accountable for the tendencies inherited from ancestors. As the die is usually cast before adult life arrives, responsibility is most difficult to determine, and is often a minimum quantity. Therefore

27. In judging human beings we should emphasize their excellencies rather than defects. As has been said, to know all is to forgive all; yet

28. Every person dangerous to property or life, whether insane, criminal, or defective, should be confined, but not necessarily punished.

29. The determinate sentence permits prisoners to be released, who are morally certain to return to crime. The indeterminate sentence affords the prisoner an opportunity to reform without exposing society to unnecessary danger; but

30. Society has no right to permit prisoners to be released who will probably return to crime; for



31. Where it is a question between justice to the individual or justice to the community, the community should have the benefit of the doubt.

32. The prison should be a reformatory and the reformatory a school; the object of both should be to teach good mental, moral, and physical habits; both should be distinctly EDUCATIONAL. There should be a minimum temptation to do wrong and a maximum encouragement to do right.

33. Institutions for reforming human beings should have the conditions as similar as possible to surroundings outside, so that when inmates are released they may adapt themselves more easily to society and not become misfits.

34. Every one has the right to a proper bringing up; and

35. The time has come when we should study a child with as much exactness as we investigate the chemical elements in a stone or measure the mountains on the moon.

36. One purpose of criminal anthropology is, through knowledge gained by scientific study, to protect the weak, especially the young IN ADVANCE, before they have become tainted and fallen; not locking the barn door after the horse is stolen.

37. The treatment of young criminals should be the prototype for treatment of adults, and procedures against them should have as little publicity as possible.

38. Publication in newspapers of criminal details is an evil to society on account of the power of imitation. In addition it makes the criminal proud of his record, develops the morbid curiosity of the people, and it is especially the weak who are affected.

39. Place confidence in the so-called bad boy, awaken his ambition and teach him to do right for right's sake.

40. Put the criminal upon his honor. A criminal once said: "If they will not believe me when I tell the truth, I might as well tell lies."

41. Nothing will hinder development of the young more than the prospect of having plenty of money and no necessity to work. Idleness often leads to crime.

42. It is more important to know what is good than what is true; for

43. Increase in intellectual development is not necessarily connected with increase of morality, and education which trains the mind at the expense of the will is a questionable education.

44. The longer we live, the more we appreciate the average honest man, as compared with the dishonest talented man.

45. To any observer of life, the impracticability of pessimism and the advantages of optimism are evident. It has also been estimated that

46. Most of our thoughts, feelings, and acts are indifferent; but of those remaining, three-fourths are pleasurable and one-fourth painful, indicating more pleasure than pain in the world.

47. Act as thou wouldst act, if all the consequences of thy act could be realized at the moment thou actest.

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## *Editorial.*

### FOOT-AND-MOUTH DISEASE.

For some weeks past this specific infectious malady has occasioned considerable trouble, involving very material losses to the owners and dealers in cattle in a dozen or more States. While not so destructive as *Steppe-Murrain* or rinderpest; or *Pulmonary Murrain*, also known as Contagious Pleuro-Pneumonia; *Vesicular Murrain*, Aphthous Fever or Foot and Mouth Disease is a remarkably contagious malady of domestic animals, especially those with cloven feet. It is marked by blisters on the mouth and feet and on the udders and teats of females. It is communicated by contact or contiguity with diseased animals or articles and substances infected by them; also by the use of milk of such animals. It was first introduced into this country from Canada in 1871, and prevailed in Northern New York and New England; but the infected cattle were isolated, and the disease disappeared. It was brought again into Baltimore by importa-

tion of Channel Island cows in 1883, but was again soon eradicated. Subsequently other outbreaks of limited duration and spread have been noted; but none perhaps, so extensive as the present.

It is highly infectious, being disseminated not only by communication and commingling sick with healthy animals, but also by manure, litter, stable utensils, clothes and boots of attendants and veterinary surgeons, and by cattle cars. Even healthy cattle passing over roads previously traversed by cattle suffering from the disease is sufficient to produce it in non-infected animals. The vitality of the virus is not considered to be usually very great, markedly less than some other infections; and it is said, that as a rule the danger ceases at the end of thirty days after the recovery of the last animal in an infected herd; yet instances are given in which troughs, hay-racks, and stables have caused fresh outbreaks after the lapse of several months. Therefore, successful efforts to eradicate the disease require thorough disinfection of stables and utensils, with complete destruction of all litter and manure, burning the former and mixing the latter with quick-lime.

Foot and Mouth Disease is peculiar to cloven-footed domestic animals, cattle, sheep, goat, and swine, but may be communicated by them to the horse, dog, cat, rat, and poultry, and also to man. On the latter account it is of special interest to the practitioner of medicine. It may also occur among the wild ruminants, such as deer, buffalo, camel, llama, giraffe, and antelope.

The symptoms of the disease in cattle, briefly stated, are chilliness followed by increased temperature, heat and redness of the mouth, soreness of the udder, lameness, and inclination to lie down. On the second or third day large blisters appear in the mouth and between the hoofs; these soon breaking leave raw ulcerations; sometimes so severe as to cause the hoofs to fall off and the bones of the feet to decay. It may be confounded with other diseases, such as foot-rot in cattle and sheep, cow-pox, and poisoning with corrosive agents; hence care is needed in making a correct diagnosis; however, there is not much difficulty, especially when we consider the rapidity of its spread, and a careful history, together with the combination of the leading clinical features. In the pig and sheep the lesions are manifested chiefly on the feet, although there may be eruptions on the snout and free borders of the lips. Sows suckling young may have an eruption on the mammae and teats, but in the sow and ewe this is not so frequent as in the cow. Young pigs infected through milk have both mouth and intestinal lesions, and in severe form. While the disease is rare in fowls, yet when it occurs there may be vesicles or sores on the feet and legs, or in the mouth and on the comb.

The period of incubation is short, the disease usually developing in from three to eight days from the time of exposure; but in rare instances it may not appear in from two to three weeks. When conveyed from milk it is quite short in both man and animals, being only from twelve to twenty-four hours.

In cattle the severest lesions, as a rule, are in the mouth, and they have great difficulty in eating, although lameness does occur, and in some cases very severe ulcerations of the feet; while in sheep the foot lesions are usually most severe, and they will not walk about in search of food, but will spend most of the time in lying down.

Recent "*Circulars*" from the U. S. Department of Agriculture give the following points in regard to the disease as now extant:

"The anxiety that has been expressed in several quarters in regard to the effect upon human health of the present outbreak of the Foot-and-Mouth Disease is regarded\* by Government authorities as somewhat exaggerated. The most common fear is that the milk supply might become contaminated, but in view of the precautions that the local authorities in the infected areas are very generally taking, there is comparatively little danger of this. Milk from infected farms is not permitted to be shipped at all. The only danger is, therefore, that before the disease has manifested itself some infected milk might reach the market. For this reason experts in the U. S. Department of Agriculture recommend pastuerization. As a matter of fact, however, pastuerization is recommended by the Department anyway for all milk that is not very high grade and from tuberculin tested cows.

"It has been demonstrated by experiments which have been made in Denmark and Germany that pastuerization will serve as a safeguard against contagion from the Foot-and-Mouth Disease just as readily as it does against typhoid fever, but in any event it must be thoroughly done—the milk must be heated to 145 degrees Fahrenheit and held at this temperature for 30 minutes.

"In this country the Foot-and-Mouth Disease has been so rare that there are few recorded cases of its transmission to human beings. In 1902 a few cases were reported in New England, and in 1908 in a few instances eruptions were found in the mouths of children which were believed to have been caused by contaminated milk. In both of these outbreaks, the sale of milk was stopped as soon as the disease was found among the cattle. As long, therefore, as the disease can be confined by rigid quarantine to certain specified areas, the danger from this source is very small. Should the pestilence spread all over this country and become as general as it has been

at various times in large areas in Europe, the problem would become more serious. Under any circumstances, however, pasteurization would be an efficient remedy. Where pasteurization is not possible, and where there is any reason to suspect that the disease may exist, the precaution of boiling milk might be advisable. Simple directions for pasteurizing milk at home, however, are contained in Circular 127, which will be sent free on application to the U. S. Department of Agriculture.

"Cows affected with the malignant form of the disease lose practically all of their milk. In mild cases, however, the decrease may be from one-third to one-half of the usual yield. The appearance of the milk also changes. It becomes thinner, bluish, and poor in fat. When the udder is affected, the milk frequently contains coagulated fibrin and blood, so that a considerable sediment forms, while the cream is thin and of a dirty color. These changes, however, occur only when the disease is in an advanced stage and, as a matter of fact, the disease is not permitted to pass into an advanced stage, as any stricken animal is at once slaughtered.

"Men who come in contact with diseased animals may also become infected. In adult human beings the contagion causes such symptoms as sore mouths, painful swallowing, fever, and occasional eruptions on the hands, finger tips, etc. While causing considerable discomfort, however, the disease is rarely serious. Where it is very prevalent among animals, some authorities believe that it is fairly general among human beings, but that the disturbances it causes are usually so slight that they are not brought to the attention of the family physician. There is, however, a very good reason for every one giving the diseased animals as wide a berth as possible—namely, that otherwise they may easily carry the disease to perfectly healthy herds. Federal inspectors engaged in the work of eradicating the pestilence are thoroughly equipped with rubber coats, hats, boots, and gloves, which may be completely disinfected; and others who lack this equipment are strongly urged not to allow their curiosity to induce them to become a menace to their own and their neighbors' property.

"According to the specialists of the Department of Agriculture people even in States quarantined for the Foot-and-Mouth Disease need have no fear of eating meat, provided they cook it thoroughly. The Foot-and-Mouth Disease is not easily communicated to human beings through food, although milk from a diseased cow might transmit the disease to a human being. In the case of milk, however, pasteurization will render it entirely safe.

"In the case of meat, as in the case of milk, it must be remembered that all herds which actually show the disease are quarantined, and neither milk nor meat from the sick animals can be sold. Sixty per cent of the meat used in this country is produced in the nearly 900 Federally inspected slaughtering and packing establishments located in 240 cities. In these establishments no animal is slaughtered until it has passed an ante-mortem inspection and also a most rigid post-mortem inspection by a veterinarian at time of slaughter. After slaughter its meat cannot leave the establishment until it has been carefully examined and stamped "U. S. Inspected and Passed." In all these establishments no animal showing any symptoms whatever of Foot-and Mouth Disease is allowed to go to slaughter, and no meat which, on post-mortem inspection, shows any suspicious symptoms of this complaint can be shipped out of the establishment. All meat suspected of coming from an animal suffering with this complaint is sent, under Government seal, to the tanks to be rendered into fertilizer. The Federal inspection stamp on meat, therefore, means that it is entirely safe.

"The Federal Government, however, has no jurisdiction over local slaughter houses which do not ship meat outside of the State in which it is slaughtered. If, however, meat from such an animal did escape from one of these local slaughter houses, which are purely under State or municipal control, all danger of its communicating the disease to human beings would be removed when it is thoroughly cooked and sterilized. Those who are located near an infected region and wish to be absolutely certain of the safety of their meat should cook it thoroughly.

"The disease when contracted by adults is not at all a serious illness. It commonly takes the form of slight fever, sores in the mouth and a slight eruption on the fingers. In the case of small or sickly children, it may take a more serious form, especially if complicated by other illnesses."

The treatment of the disease in cattle consists in cleanliness, laxatives if necessary, cooling, astringent and antiseptic lotions for the mouth, poultices and caustics for the feet, and a sufficiency of cool, soft food. Strict isolation of infected animals, together with thorough disinfection, being the essentials for arresting its spread. Large flocks of sheep, where it is impossible or difficult to attend each individual case, are sometimes treated, when foot lesions predominate, by driving the entire flock daily through a long wooden trough filled with some antiseptic drying powder. The duration of the disease in cattle is about fifteen to twenty days. The mortality is far less than other epidemic infections, such as rinderpest and contagious pleuro-

pneumonia, and the financial loss is not so much on account of death as it is in the great loss of weight and flesh, especially in animals ready for the market; animals in a few days losing all the flesh that it has taken months to put on; and which is regained very slowly in those that do recover, owing to the debility following the attack.

In human beings the disease is most apt to appear in adults among attendants of cattle, veterinary surgeons, butchers and drovers; and although usually acquired from infected animals, it is possible for one person to infect another. Among children it may be caused by drinking uncooked milk from infected cows; and fresh butter, cheese, and whey may convey the infection. As a rule, in healthy persons it is mild, passing away in about ten days. The period of incubation being from three to five days, or less in milk infection. The mortality in weak, marasmic children may be considerable.

The symptoms first to attract attention are similar to aphthous stomatitis. A rigor may mark the onset or merely slight shiverings or chilliness, followed by fever and malaise, and vesicles soon appear on the tongue and inner surface of the lips. The mouth is hot, the mucosa reddened and swollen, and ptialism may be present. A miliary eruption that soon may become pustular may also appear on the skin surface, especially on the fingers and hands, and usually among milkers there may be sores on the tips of the fingers around the nails (there may be even sloughing of the nails), or in the spaces between the fingers. When vesicles involve the pharynx, they may cause great difficulty in swallowing; and there may be vomiting and intestinal irritation, diarræa, etc., when the infection occurs through milk. One attack does not confer immunity in man or animals. A diagnosis is readily made, if the infection is prevalent among animals. Whitaker says "the peculiar coincidence of the eruption in the mouth and extremities, sparing the rest of the body, has not been noticed in any other infectious, eruptive disease."

The treatment for aphthous stomatitis, both general and local, is advised by standard authorities. Laxatives if needed, nutritious fluid or soft diet, with astringent, antiseptic and demulcent applications for vesicles and ulcerations locally.

The spread of the Foot-and-Mouth Disease to a number of States has moved the authorities to employ the most drastic methods to eradicate the plague. As the disease made its appearance the State infected was quarantined until fourteen States fell under the ban. The malady was looked on with such dread by the veterinary authorities of the United States that whole herds found to be infected were ordered killed. During the period of frenzy hundreds of thousands of dollars' worth of cattle were destroyed. It is probable that much

of the destruction was unnecessary. At least it appears that way, for the common sense view seems that infected herds should have been isolated and the disease grappled with and eradicated by the means of medical treatment, proper care, thorough isolation, etc., and not by destruction.

It is probable that many sound animals have been slain in the campaign of eradication. This cannot be defended. It is bad enough to kill the infected ones. It is up to the veterinary profession to not only prevent the spread of the contagion, but to cure infected animals. It is not creditable that the veterinary authorities confess inability to successfully grapple with a disease of such serious character, and which affects so vitally the interest and welfare of the people. The infection is far less fatal than anthrax or glanders to man; or rinderpest and pleuro-pneumonia to animals.

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**SPECIFY THE BRAND!**—Every now and then one is forcibly reminded of the fact that the pharmaceutical market of to-day contains many so-called therapeutic agents of doubtful medicinal value—agents of indefinite and varying potency. The point was well brought out, not so very long ago, by a certain chemist who purchased in the open market ten samples of tincture of opium in which the content of morphine varied from 2.7 to 22.8 per cent. Of three tinctures of aconite which he examined, one was found to contain 9 per cent. more of aconitine than the standard required, and another 20 per cent. less. Two specimens of fluid extract of the same drug contained 18.5 per cent. and 25.5 per cent. more, respectively, of the alkaloid than is officially required. Samples of belladonna showed 11.5 per cent. less of mydriatic alkaloids in the fluid extract of the root, and 17 per cent. more in the tincture of the leaves. Some tinctures and fluid extracts of nux vomica revealed an excess of strychnine—in one case of 19 per cent.

The foregoing facts are called to mind by an announcement which is appearing in medical journals over the signature of Parke, Davis & Co., bearing the title, "*Fluid Extracts and Tinctures of Definite Potency*," and opening with this significant question: "When writing a prescription for a fluid extract or tincture, what assurance have you that the product dispensed will be medicinally efficient?—that it will be active, yet not too active?—that it will produce the therapeutic result that you hope for and expect?"

It is well known that Parke, Davis & Co. are authorities upon the subject of standardization, chemical and physiological, and it may be confidently asserted that the practitioner of medicine who reads and ponders what is said in the announcement referred to will find that



his time has been well expended. The physician's obligation to his patient, it should be remembered, does not cease with the writing of a prescription. There remains the further duty to assure himself that trustworthy products are used in compounding that prescription. When he prescribes a fluid extract or tincture the physician owes it to his patient to specify the brand—the brand of a reliable manufacturer. Therefore, he owes it to himself and his patient to see that there is no *substitution*.

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**A PROFESSIONAL GAMBLE:**—Any imitation of a medicinal remedy is a gamble not only upon the reputation of the original product established solely through therapeutic merit, but upon professional standing and your patient's health as well.

The many imitations of Hayden's Viburnum Compound, the original Viburnum product, best tells the story of the commercial greed of imitators who would profit at your expense and by the professional favor accorded H. V. C., as the original and reliable product in the treatment of Dysmenorrhea, Amenorrhea, Menorrhagia, Metrorrhagia and other Gynecological conditions.

H. V. C. is a product of known composition and from the fact that it has been accorded commendation by the medical profession for over 45 years, best indicates the therapeutic efficiency of this remedy, as well as the assurance of satisfactory results when the original and not an imitation is prescribed.

The manufacturers of imitation products care not for therapeutic efficiency, the foundation upon which Hayden's Viburnum Compound was built. It would seem advisable therefore that in administering H. V. C., that the original and not an imitation is given to your patients. Samples of the original H. V. C. with formula and literature will be sent on request to N. Y. Pharmaceutical Co., Bedford Springs, Bedford, Mass.

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**MR. JNO. B. DANIEL**, wholesale druggist and manufacturer, one of the pioneer and leading business men of Atlanta, Ga., died at his residence in that city, October 26th, ult., after an illness of two weeks. He was in his sixty-ninth year. He was born in Lincolnton, Ga., in 1845, educated and passed his boyhood in Calhoun, Ga., entering the Confederate Army at the age of 15, serving throughout the four years' war between the States.

Coming to Atlanta at the close of the war, he engaged in the Drug business, first as clerk, then as a member of the firm of W. T. & L. S. Meade Co., and later as the sole owner of the Jno. B. Daniel Drug Co., so well and widely known throughout the entire country as one

of the largest wholesale and manufacturing drug businesses in the South.

He was for thirty years an elder in the First Presbyterian Church, with tall and erect stature, his kindly courtesy, strict business integrity and unwavering honesty eminently marked him as one of the leading citizens of the Georgia metropolis. He was unmarried, and lived with his only surviving sister, Mrs. Jane P. Fleming, prior to his decease.

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**THE BOWELS ARE SECRETORY ORGANS:**—It is the failure of the secretory function of the bowel, together with a poor bile secretion, which, in nine cases out of ten, is responsible for constipation.

More cathartics altogether overlook this factor and address themselves solely to a stimulation of the musculature. Some even inhibit intestinal secretion. The result is a rapid, unsatisfactory bowel movement, followed by paralytic reaction.

Pil. Cascara Comp. (Robins) is a rational therapeutic formula, which promotes a natural flow of secretions, which is, in turn, the physiologic stimulant of peristalsis. Thus a normal evacuation is produced, without subsequent inhibition.

Formula of Pil. Cascara Comp. (Robins) Mild:

|                   |          |
|-------------------|----------|
| Cascara .....     | 1-2 gr.  |
| Podophyllin ..... | 1-16 gr. |
| Colocynth .....   | 1-4 gr.  |
| Hyoscyamus .....  | 1-12 gr. |

Dose—1 to 3.

Pil. Cascara Comp. (Robins) Strong is four times the strength of the Mild.

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**DANGER DUE TO SUBSTITUTION:**—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The more recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

**CONCERNING CATHARTICS:**—To the layman, a cathartic is simply a cathartic, and nothing more. One thing is as good as another, as long as it “moves the bowels.” To the physicians there is a vast difference between “moving the bowels,” and inducing normal bowel action.

For years Strychnine was the stock ingredient of cathartics, for the purpose of stimulating the muscle to peristalsis. But nowadays we realize that Strychnine more often inhibits peristalsis by over-stimulation, and that the best stimulant of intestinal muscles is the intestinal secretions.

Pil. Cascara Comp. (Robins) contains no Strychnine to force the musculature, nor Belladonna to inhibit the secretions. On the contrary, it stimulates the flow of secretions and normalizes peristalsis. It is, in fact, a Normal Cathartic.




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**A SEDATIVE IN SEXUAL IRRITATION:**—It is in irritation of the sexual centers, manifested by exaggerated desire, premature ejaculation with lack of relief following, sleeplessness and general instability of the nervous system, that PASADYNE (Daniel) will exert a marked influence of a beneficial character.

A quality that gives an added value to PASADYNE is its freedom from untoward effects. It is well known that this product is a preparation of *passiflora incarnata*, the name PASADYNE distinguishing it from inferior products and preventing substitution.

A sample bottle may be had by addressing the laboratory of John B. Daniel, Atlanta, Georgia.

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**PROPHYLAXIS AGAINST “COLDS:”**—In the case of a great many persons who each winter suffer severely from “colds” even involving the smaller bronchi, one of the most successful means of guarding against such infections is the systematic use of Cord. Ext. Ol. Morrhuæ Comp. (Hagee) during the winter season.

By means of this cod liver oil product, which is exceptionally palatable, the tissues, particularly the tissues of the respiratory tract, are increased in resisting power against microbic invasion, in which phenomenon, of course, is to be sought the explanation of the power of Cord. Ext. Ol. Morrhuæ Comp. (Hagee) to reduce the likelihood of “colds.”

**THE "CITY" ANEMIC:**—The hard hum-drum city life, especially of those whose days are spent indoors, in offices, bending over desks, ledgers, and school books, is almost certain, sooner or later, to leave its traces upon the man, woman or child thus unfortunately situated. General sluggishness of metabolism, due to indoor confinement in a vitiated atmosphere, and lack of exercise, is followed by failing appetite and later by degenerative blood changes of anemic nature. While Pepto-Mangan (Gude), cannot, of course, remedy the cause of the anemia and general devitalization, it almost always assists materially in overcoming the anemic blood state, increases appetite and acts as a real tonic and general reconstructive. As Pepto-Mangan (Gude) is free from irritant effect upon digestion, it is readily borne and quickly absorbed and assimilated, and as it is non-astringent it does not cause or increase constipation.

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**STUBBORN CASES OF RHEUMATISM:**—"Many stubborn cases of rheumatism respond rapidly to the influence of Tongaline. This product representing the highest degree of pharmaceutical skill contains the salicylates in an unusually potent form, because they are not obtained by synthesis but from the natural oil. In addition to their potency as anti-rheumatics, they possess the advantage of not deranging the stomach."

Physicians who appreciate honest pharmacy will find in Tongaline a product worthy of their highest commendation and confidence.

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**PAIN: ITS RELIEF:**—If ever direct methods are needed it is in the relief of pain. And the application of a direct method in pain embraces, of course, the administration of a reliable and effective anodyne—and such an agent should be free, to the greatest extent, from evil effects.

A product that answers these requirements of an anodyne is PAPINE (Battle). Its effect is prompt and positive and it possesses a minimum of bad effects. For these reasons PAPINE is entitled to first rank among pain-relieving agents.

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"THEORIES MAY CHANGE, fads may come and go, but the true indication of a remedy is the same yesterday, to-day and forever." This statement is particularly applicable to Tongaline, which for more than 30 years has been a favorite remedial agent with thousands of physicians, through whose administration, it has relieved innumerable suffering patients.

## Selections

**BUBONIC PLAGUE:**—Bubonic plague was first mentioned in the Bible in 2 Samuel, when the Philistines contracted the disease from the field mice. They built three golden images of the field mice, in order to appease the Gods so that they might be relieved of the plague. The next accurate mention of the disease is by Rufus of Ephesus in the second century B.C. At this time plague spread over the known world. In 542 A.D. the plague again spread over the known world. Up to this time the disease seemed to have had its origin in Egypt. In 1346 A.D. plague again appeared, coming from Asia Minor, thence spreading over the known world. Beginning in the 14th century, plague continued at intervals until 1879. From 1879 to 1894 the plague apparently disappeared from observation. In 1894 the disease was found in Hong Kong, having spread there from Canton, China. From Hong Kong it was carried to Europe, Africa, Australia, Japan, India, San Francisco, many places in South America, Cuba, and recently it has appeared in New Orleans.

The plague belongs to the class of hemorrhagic septicaemias. It is characterized by fever—usually 102 or 103, severe prostration, buboes and a terminal septicaemia.

The disease is caused by the *Bacillus Pestis*. It presents the ordinary cultural characteristics and is killed by the ordinary measures.

The virulence varies greatly. In the beginning and ending of an epidemic, it is usually low, giving rise to the mild cases. At the height of an epidemic its virulence is high. The bacillus lives many months in unfavorable surroundings.

The pathology of bubonic plague is most interesting, but too extensive for details in a paper of this nature. The infection may be introduced through the skin without producing a local reaction. In the event of the local reaction

a bleb forms, containing clear fluid, which later turns to pus. After rupture of the membrane, a dry, dirty gray ulcer remains. Extending from this ulcer may be a line of lymphangitis which is hard and red.

The lymph node draining the area in which the infection occurs is the first affected. The degeneration in this bubo is massive. The swelling is intense and very rapid. Surrounding the bubo is an area of hemorrhage, and further out is an accumulation of lymph. The hemorrhagic induration may mat together all of the glands in the groin. On cut section this mass is very characteristic. It is hard, moist, intensely red, with the section of gland as a dirty gray. The first gland infected is called the Primary Bubo. The bacteria and toxins pass from this primary bubo along the lymph vessels to the glands higher up. The poison causes an intense area of degeneration along the lymph sinuses in these glands, giving a very characteristic picture. These glands are also surrounded by a hemorrhagic area, but not by oedema. They are called Secondary Buboes. The bacteria and poisons pass from the lymph vessels to the blood and thence throughout the entire body, causing in distant lymphatic glands a degeneration in the center of the lymph follicle. These are called Tertiary Buboes. It is rare for any of these buboes to suppurate. If the disease passes on to recovery, the glands slowly resolve. If suppuration occurs, they must be opened. Occasionally, following a suppurating gland, a chronic ulcer develops, which may require months or even years to heal.

All of the organs show parenchymatous and fatty degeneration. Hemorrhage in all of the organs is common. These hemorrhages may be very small, punctate, or very large, covering an extremity or the trunk. This extensive hemorrhage, occurring in the 14th century plague, gave rise to the name of Black Death.

Septicaemic plague develops with an initial septicaemia and without the development of buboes. Pneumonic plague

develops an inflammation of the bronchi, which may extend to the lungs, producing a broncho or lobar pneumonia. In septicaemic and in many cases of pneumonic plague death usually occurs before 36 hours.

The clinical features of plague show no peculiar characteristics of diagnostic importance. The rapid swelling of the buboes produces an intense pain, which the patient seeks to assuage by assuming the position best suited to relieve as much pressure as possible from the affected part. In well-developed cases, at the height of an epidemic, the expression of the patient is somewhat characteristic. It is an expression of fear, pain, and anxiety. This, with the characteristic position to relieve pressure, in the height of an epidemic, may suffice for a diagnosis. Generally speaking, the clinical picture is completed within four days; otherwise, convalescence usually begins.

The diagnosis of plague, during an epidemic, presents no difficulty. But the minor cases, in the beginning and ending of an epidemic, are most difficult to diagnose. The demonstration of the bacilli is necessary.

The mortality in plague varies from 30 to 99 per cent. The great majority of cases die before the fourth day.

The prevention of pneumonic plague is most difficult, for the reason that the modes of transmission of the disease are numerous. In the pneumonic plague the disease is transmitted through the sputum and may pass directly from person to person. On account of the viability of the organism, any article, such as linens, etc., may serve to carry the germ from place to place and to persons.

Practically all of the domestic animals and many of the wild animals are susceptible to plague. Most important among these are the rat and the squirrel. Plague in the rat is similar to that described in man. The terminal septicaemia is intense. During the last few hours of life the fleas infesting the stricken animal suck the highly infected blood, and after death, when the animal's body be-

gins to cool, the infected fleas leave the animal to infest other living things. If opportunity presents, these infected fleas attack human beings. It has been found that the pest bacillus lives in the body of the flea for as much as ten or fifteen days and that during this time the flea is capable of giving the plague to man or animal.

Bedbugs also may suck the infected blood from either man or animals during the terminal hours and thus serve to transmit the disease. It has been found that as many as 22 per cent of the bedbugs in infected huts, and 4 per cent in uninfected huts, harbor pest bacilli.

Symptomatic treatment should be given. The subcutaneous or intravenous use of large quantities of antitoxin have reduced the death rate perhaps 10 per cent.

The preventive measure, then, of most importance is extermination of the rats. This is best done by depriving them of food, by keeping all food in rat-proof receptacles, by trapping and poisoning them or by killing them with cats; extermination of the squirrel, especially the ground squirrel; by the extermination of all pests, such as bedbugs and by cleanliness, in its fullest sense. Isolation of the sick is of minor importance.

The records regarding the use of Haffkin Prophylactic Serum show that a protective immunity of considerable value may be produced.—*W. J. Calvert, M.D., of Dallas, in Texas Med. News.*

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**TREATMENT OF EXOPHTHALMIC GOITER:**—Voviard, in the *Postgraduate*, has the following to say concerning Forchheimer's treatment of exophthalmic goiter:

"There is a medicinal treatment for exophthalmic goiter recommended by Forchheimer in his work on 'Therapeutics of Internal Diseases.' He reports his results with the use of ergotin combined with quinine hydrobromide (5 grains of quinine, 1 grain of ergotin) given three or four times a day. They may be given separately. He was led to use



the quinine in these cases by noting its favorable action on an individual patient and the fact that Jesuit's bark had long been advocated in the treatment of goiter; the ergotin was used on the theory of its influence on the size of the blood vessels.

"Any one of us who knows anything of the influence of medicine knows that the use of either of these medicines in exophthalmic goiter is largely empirical—we cannot say that either one, or both, is particularly indicated in the disease; yet Forchheimer reports a series of seventy-one cases treated in this way with over 80 per cent of success.

"My experience has not been wide enough to warrant me in drawing any conclusions, except that it seems to be worth while. Certainly some patients so treated improve so promptly and so decidedly as to convince me that this treatment has some value. It may be continued indefinitely.

"It may be necessary to reduce the dose of quinine, although, as Forchheimer points out, he had figured out the combination of quinine and bromide with the idea that the bromide would to some extent control the symptoms of cinchonism. Some cases will not stand 15 or 20 grains a day of quinine, but it can usually be continued for months or years without harm to the patient, and with apparent definite benefit.

"The use of quinine and ergotin has been tried out by such good clinicians as Shattuck and Mead and Jackson, so one cannot but feel that there may be a distinct value in these remedies.

"All kinds of medicinal and biologic remedies have been proposed for the treatment of exophthalmic goiter, and most of them have proven of little permanent value. This lack of success has led to surgery, but, unfortunately, surgical intervention in this disease has been attended by an uncomfortably high mortality, and, under the circumstances, the conservative physician hesitates to recommend it. He naturally turns to simpler expedients, such as the

Forchheimer treatment, which has proven quite effective and is certainly worthy of trial.

"Another method of treatment is that advised by Carrison, who believes the disease due to intestinal infection with certain types of bacteria. He treats his cases with thymol and gives them autogenous bacterins, using bacterial cultures obtained from the stools. There is no good reason why the Forchheimer and Carrison methods should not be used in association, and we take pleasure in bringing both again to the attention of our readers, who, of course, are familiar with both, though possibly not as appreciative of their merits as they should be."—*Med. Brief.*

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**ABDERHALDEN'S TEST FOR PREGNANCY:**—Palmer Findley, in the *Medical Herald*, gives an interesting account of his experience with the Abderhalden test for pregnancy. He says:

"While in the great majority of cases where doubt exists we can rely for our safeguard upon the time-honored custom of awaiting future developments in the full assurance that in the course of time the diagnosis will be made clear, yet there are occasional cases in which it is not only advisable but mandatory that a diagnosis be made with little delay. In such instances we call to our aid every possible means of diagnosis, and it is in just such cases that the sero-diagnosis of pregnancy promises to be of very special value.

"The observations of Abderhalden throw light upon the method by which the animal body protects itself against foreign bodies introduced in to the blood. He finds a metabolic reaction, in that ferments are found in the blood plasma as the result of this reaction. It has been long known that foodstuffs taken into the body are variously altered by ferments in the cells of the digestive glands, and that substances introduced into the digestive tract requiring digestion do not enter the blood under normal conditions.

"Abderhalden has demonstrated the presence of a ferment in the blood plasma of the pregnant woman, a ferment which has the power of digesting placental proteins into soluble peptones and amino acids. He finds this ferment to exist from the sixth week of gestation to the fourteenth day of the puerperium. It is further observed that this ferment is specific in its action, that it will only digest placental proteins. Placental extracts injected into the blood of the male animal develops this ferment in the blood plasma. This ferment is not developed in the placenta, but is elaborated in the blood as a protective agency against the presence of deported chorionic epithelium.

"Assuming that Abderhalden's observations are correct as applied to placentation we may expect further developments in other lines, as, for example, in malignancy where cancer cells and sarcoma cells enter the blood, and we have the statement from Abderhalden and other observers that a specific ferment exists in the blood of cancerous patients which will digest cancerous proteins, of sarcoma patients which will digest sarcoma proteins, that these ferments are specific in action and will digest no other proteins. Sufficient observations have already been made to warrant the hope that we have a means of early recognizing malignant growths by means of a biological test similar to that of pregnancy.

"The test will be found of special value in cases of suspected abortion where temperature or hemorrhage exist, in ectopic pregnancy, in amenorrhea, in nursing mothers who are suspected of being again pregnant, in medico-legal cases, and in the differentiation of pregnancy from fibroids, ovarian cysts and subinvolution of the uterus associated with amenorrhea."

---

A NEW METHOD FOR THE DIAGNOSIS OF SYPHILIS:—For a long while pathological chemists have been experimenting in search of a chemical reaction simple enough to be done

by any physician. Landau, in *La Presse Medical*, May, 1914, after studying the behavior of syphilitic sera towards the halogens, observed that these sera were able to absorb iodine. He first tried dissolving iodine in petroleum, but due to the instability of this mixture he has discarded it. Lately he uses as his reagent a solution of carbon tetrachloride with 1 per cent. iodine. His technique is as follows: 0.2 ccm. of serum is placed in a small test tube and 0.1 ccm. of the iodine solution is added, the tube is shaken and left in the dark for from five to fifteen hours. A positive reaction is indicated by a complete decolorization of the mixture. Normal serum gives under identical conditions a yellowish red color. Out of 90 samples from suspicious cases 49 showed a positive Wassermann, whereas 55 showed a positive Landau. Thirty-two other cases were negatived by both the Landau and the Wassermann. The following points must be observed to get accurate results: The serum must be fresh and free from hæmoglobin. The serum must be non-lippæmic. The reagents must be freshly made up. Of late this reaction has been tried in the pathological department of Grace Hospital. In 45 cases tested, 37 gave a positive Landau, whereas 32 cases gave a positive Wassermann. No clinically negative gave a positive by any method. The Wassermann method used was the original method, but smaller quantities of reagents used. It is too early as yet to say much about this new and simple test. The only fallacy being a positive with fat serum.. This test is, however, being fully worked out by Dr. K. Simon, pathologist in charge of Grace Hospital Laboratory.

---

CONTRAINDICATIONS TO NARCOSIS:—Stange writes that patients with mitral lesions, in general, bear narcosis well; those with lesions of the aortic valves or of the aorta, poorly, especially if the heart muscle itself is weakened or diseased. In determining the advisability of giving a general anesthetic, a functional test of the sufficiency of the cardiac muscle would be most valuable. Practically, how-

ever, this is not an easy matter. If the patient is able to climb three flights of stairs without undue dyspnea, the heart muscle may be considered normally strong. Less than this, however, usually suffices to render a general anesthetic permissible. The blood-pressure is not a useful indicator, since patients with a pressure of less than 60 mm. or more than 200 mm. often bear the anesthetic well. The same is true of both large and small hearts, determined radioscopically. The most useful test, according to the author, is a respiratory one. A normal individual can easily hold his breath for 30-40 seconds; one with an impaired myocardium only 10-20 seconds. The test is done as follows: The patient sits comfortably in a chair and makes a moderately deep inspiration. The physician lightly compresses his nostrils and directs him to hold his breath as long as possible. Anyone with a normal myocardium can comfortably hold his breath for 30 seconds and then breathe easily; if the myocardium is impaired, 20 seconds is his limit and is followed by dyspnea. Even patients with tuberculosis, bronchitis or pleuritic effusions can still hold their breath for 25-30 seconds. The writer concludes that no one who is unable to hold his breath for 20 seconds, should be subjected to a general anesthetic.—*Berl. klin. Woch.*, No. 14, 1914.

---

BENZOL IN LEUKEMIA:—Levison, in the *Interstate Medical Journal* for June, 1914, reaches these conclusions:

1. Benzol is a symptomatic remedy of great value in leukemia.

3. The dosage should be from 3 to 5 grm. daily. It should be given mixed with olive oil or milk to lessen the irritation of the stomach. It should be given when possible after meals.

4. Benzol may produce symptoms of gastrointestinal irritation, such as burning, flatulence, nausea, and vomiting. Dizziness, albuminuria, bronchial irritation, and mucous membrane hemorrhages may occur.

When benzol is not tolerated by mouth, it may be tried subcutaneously or per rectum.

6. Benzol first causes an increase in the white blood cells, and then a marked fall. This drop may go below normal, and even to a complete absence of white cells if the use of benzol is unduly prolonged.

7. The administration of benzol should always be stopped before the white cells reach a normal figure.

8. Benzol in moderate doses has a favorable effect on the red blood cells and hemoglobin.

9. It is better, when possible, to combine the use of benzol with the X-ray.

10. Benzol has a favorable action to a limited degree on some types of pseudo-leukemia.

---

**STRETCHING OF THE SCIATIC NERVE:**—This method of treatment of sciatica, of which little has been heard within recent years, has been applied with good results in seven rebellious cases of this condition by Giulib Nannini (*Le Riforma Medica*, July 25, 1914). By means of an incision on the posterior aspect of the thigh just below the buttock, and by the serapration of the muscles, the nerve is exposed and isolated and is then subjected to firm traction in such manner that the entire length of the nerve responds to the mechanical stress. The traction should be continuous and not a series of sudden or violent jerks. During the first few days following the operation the patient experiences a vague pain, but this is less than before the operation; later there is a feeling of paresthesia in the distal part of the limb, a feeling as if this were about to fall off; still later all symptoms disappear and on the tenth to the twelfth day the patient begins to walk. The *modus operandi* of the stretching operation is difficult to explain. Of course, the rupturing adhesions is an important item. But the traction on the nerve causes vascular and nutritional changes in the parenchyma of the nerve and in the perineurium, which changes may be important factors in the cure.—*N. Y. Med. Record*.

**A SOAP PASTE USEFUL FOR PURPOSES OF LUBRICATION:—**

A. Labat, in *Journal de médecine de Bordeaux* for May 17, 1914, refers to the fact that the lubricant preparations in general use for vaginal and rectal examinations are usually of fatty nature and can be removed from the fingers or gloves only by vigorous brushing with soap and water. The following combination not only possesses the unctuous consistence of petrolatum, but can be removed by merely washing the fingers or gloves with water:

R Saponis pulveris .....3viss (25 grams)  
 Glycerini .....3xiss (25 grams)  
 Aquæ destillatæ .....3xviss (61 grams)

M. et ft. pasta.

The soap is dissolved in the mixture of glycerine and water on a water bath. The whole is then poured into a mortar and beaten up for some time until a homogenous paste is obtained. The paste is then kept in sterile containers.—*N. Y. Med. Jour.*

**TINCTURE OF IODINE IN GASTROINTESTINAL HEMORRHAGE:**

—Nottebaum finds (*Deut. med. Woch.*) tincture of iodine a valuable hemostatic in hemorrhage from gastric or intestinal ulcers. In one severe case of typhoid fever hemorrhage persisted in spite of the application of an icebag and the administration of gelatin, lead acetate, opium, ergotin, and strychnine. The condition being critical, the author as a last resort prescribed tincture of iodine, in small doses at short intervals. The diarrhea and hemorrhage soon ceased, and the patient recovered after taking the mixture for twelve days without a sign of iodism. Five similar cases treated in the same way showed equally satisfactory results. The diarrhea was rapidly checked in most cases. In 4 cases of hemorrhage from a gastric ulcer the author found the action of tincture of iodine rapid. It also relieves the abdominal tenderness in this condition, and probably assists in cicatrizing the ulcer.—*Critic and Guide.*

**DISINFECTION OF TYPHOID STOOLS:**—H. Linenthal and H. N. Jones give an account of testing a method for disinfecting typhoid stools in a practical and effective manner which requires only such utensils as are available in every household, and so simple as to require little intelligent effort on the part of the attendant. Such a method was described by Prausnitz, of Austria, at the Fifteenth International Congress on Hygiene and Demography, held in Washington, September, 1912. The method was devised by A. M. Kaiser in the Hygiene Institute of Gratz University. It consists of adding enough hot water to cover the stool in the receptacle and then adding about one-fourth of the entire bulk of quicklime (calcium oxide), covering the receptacle and allowing it to stand for two hours. The hydration of the lime generates enough heat to destroy the typhoid organism. Linenthal and Jones believe that this is a simple, efficacious method and should take the place of the various methods now recommended by local boards of health.—*Boston Med. and Surg. Jour.*

---

**SUBLINGUAL MEDICATION:**—Wm. Paulson (*British Med. Jour.*, Sept. 26, 1914), calls attention to the great usefulness of this method and to the fact that it seems to be so little known. Any soluble medicament, especially the alkalis are even more readily absorbed from the mucous membrane beneath the tongue than from the subcutaneous tissue, furthermore it is safe, cleaner and quicker. He says that in the South African war, it was used extensively and that one physician told him, that he could treat fifty wounded and suffering soldiers in the same length of time that he could prepare to give a hypodermic to one.

---

**IT IS FAR BETTER** to introduce a non-metallic catheter into the bladder with forceps than with the fingers, however carefully one may "scrub up."—*American Journal of Surgery.*



**SERUM TREATMENT OF VOMITING OF PREGNANCY:**—T. Spies has essayed this method of treatment with great success in one case of severe vomiting of pregnancy. Le Lorier in 1911 was the first to report the happy effects following the use of horse serum in the incoercible vomiting of pregnancy. In the same year Freud had recommended the use of horse serum in the treatment of the dermatoses, and Mayer had demonstrated the advantage of the use of blood serum obtained from a pregnant woman in the treatment of persistent vomiting in another pregnant woman. Spies injected into his patient two doses of 10 c.c. each of horse serum, at an interval of three days. The vomiting was fully controlled after the second injection.—*La Clinique*.

---

**DELIRIUM TREMENS:**—Withdraw cerebrospinal fluid by lumbar puncture in amounts as large as possible—50 c.c. to 60 c.c. 2. Inject with syringe an equal amount of sterile 1 per cent sodium bromide solution. Immediate improvement in delirium usually occurs, followed by temporary return and then permanent disappearance of delirium.—*Med. Brief*.

---

**A CONVENIENT MEANS** of protecting the hand from soiling during a rectal examination consists in passing the index finger through a small opening in a square of gauze and applying a rubber cot pulled down over the gauze at the base of the finger.—*American Journal of Surgery*.

---

**SPEED IS OF GREAT IMPORTANCE** in thyroidectomy for exophthalmic goiter, but also important is deliberation in so placing the ligature around the inferior thyroid vessels that the inferior laryngeal nerve is not included.—*American Journal of Surgery*.

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DECEMBER, 1914.

No. 12

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